

KIC 006285397

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})
006285397-01	OBS	6685.01	5.243831	132.686245	130.3	8.470	9.5	10.4	0.69	4634	0.93	72.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006285397-01	OBS	FP	0.00	0	0	0	1	EPHEM_MATCH

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.

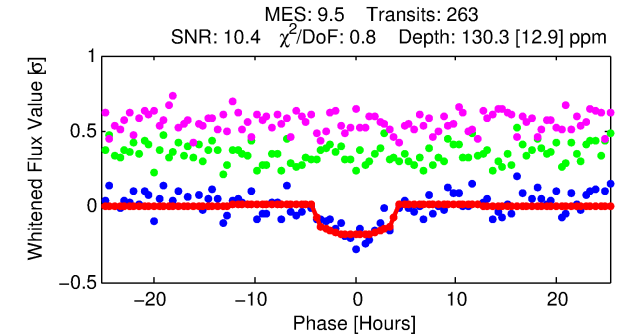
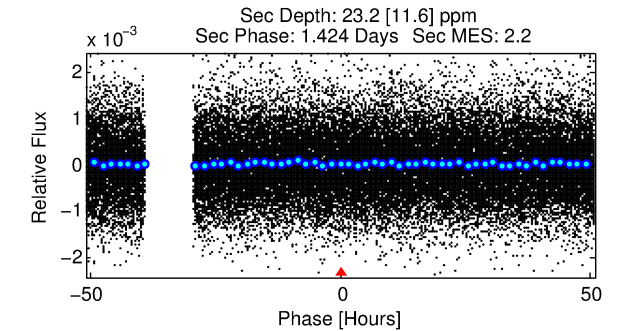
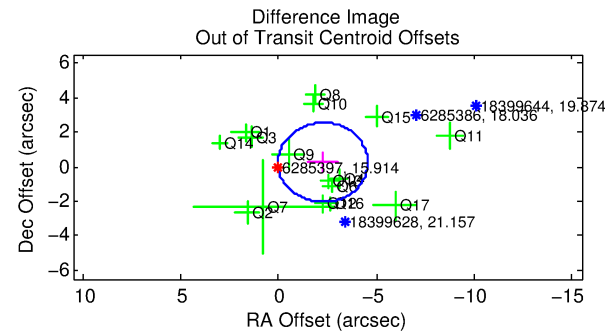
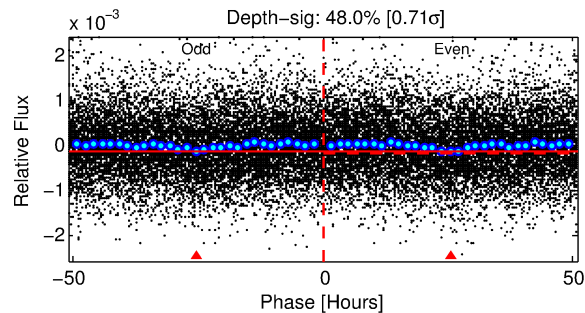
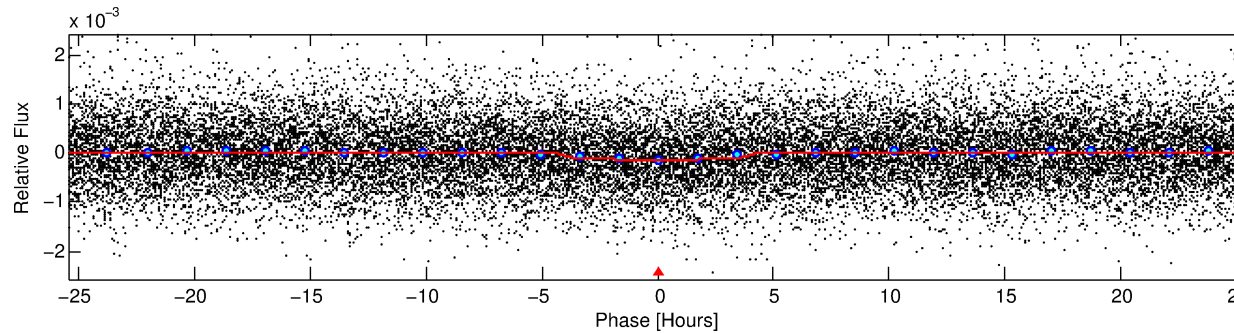
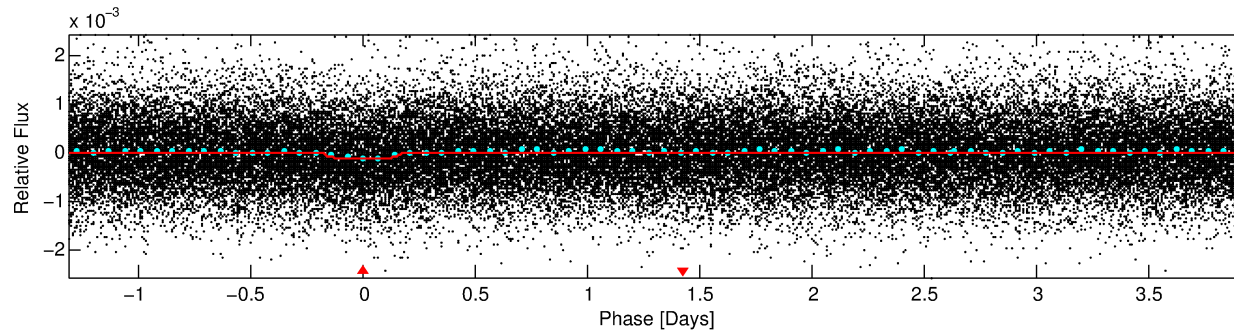
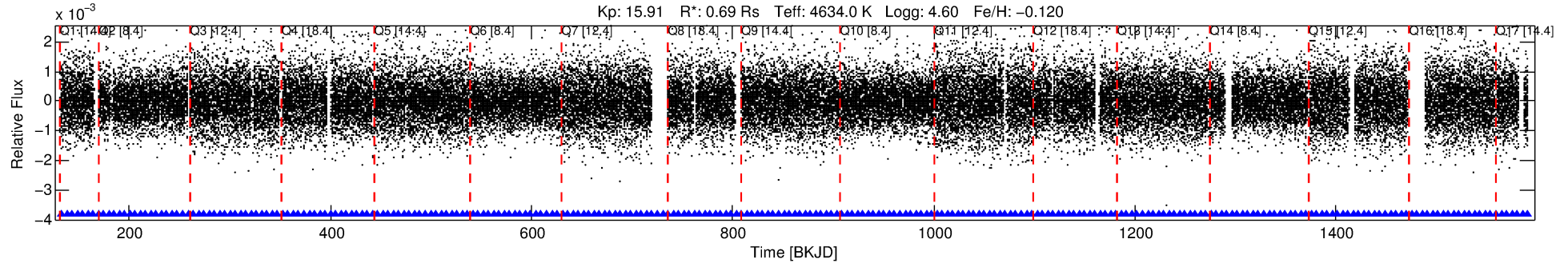
Ephemeris Match Information For 006285397-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
006285397-01	6285397	TT-Lyr-pri	6364290	1:1	261.5	-37	-23	9.49	15.91	6570.10	Direct-PRF	0	0.98	0.34

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6285397 Candidate: 1 of 1 Period: 5.244 d
KOI: K06685.01 Corr: 0.987



DV Fit Results:

Period = 5.24383 [0.00008] d
Epoch = 132.6862 [0.0116] BKJD
Rp/R* = 0.0124 [0.0054]
a/R* = 2.64 [3.61]
b = 0.87 [0.47]
Seff = 72.33 [11.26]
Teff = 744 [29] K
Rp = 0.93 [0.41] Re
a = 0.0521 [0.0037] AU
Ag = 39.81 [40.08] [0.97 σ]
Teffp = 2888 [729] K [2.94 σ]

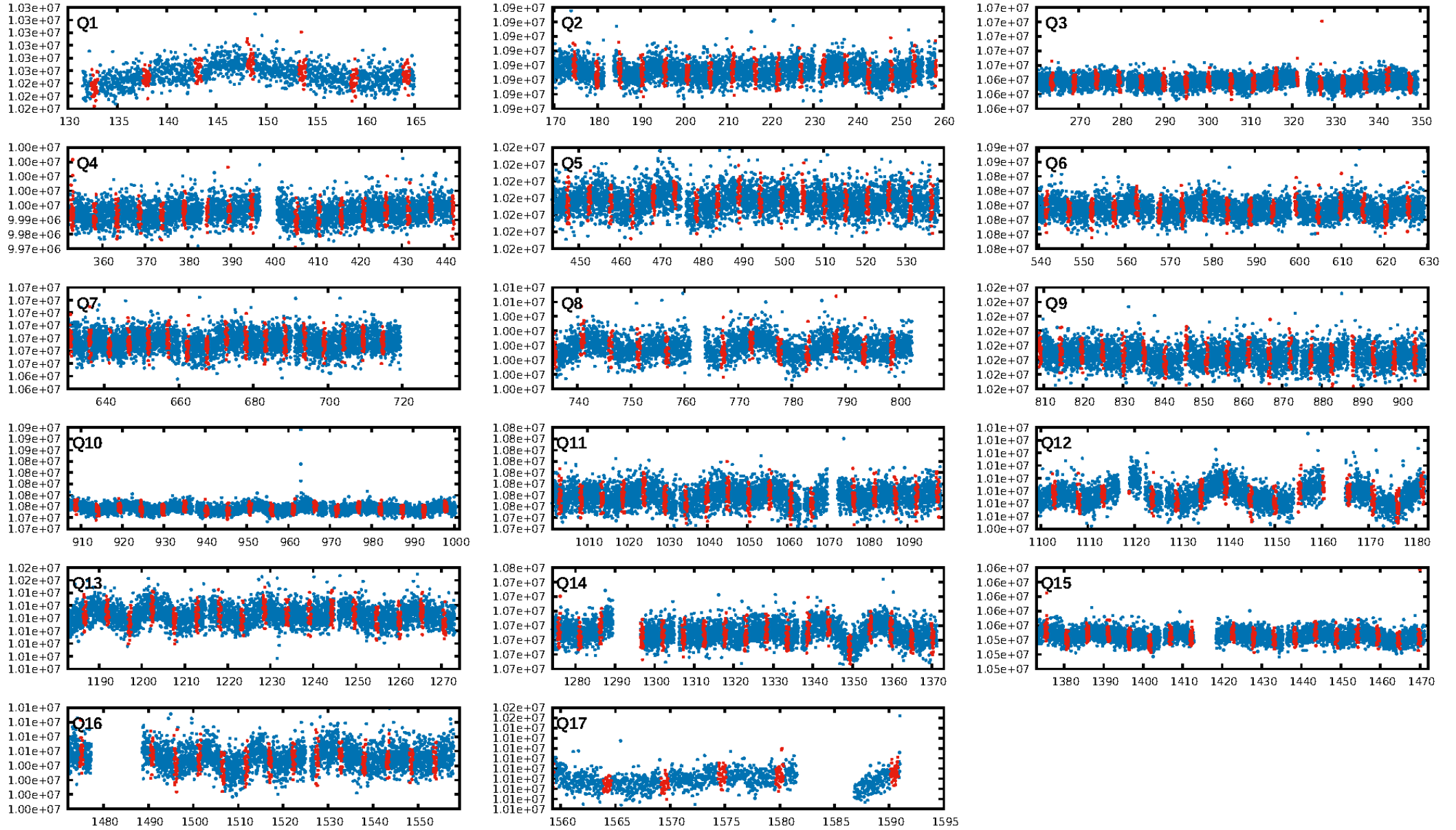
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.91e-22
RollingBand-fgt: 1.00 [251/251]
GhostDiagnostic-chr: 0.2954
Centroid-sig: 1.1%
Centroid-so: 1.056 arcsec [0.89 σ]
OotOffset-rm: 2.271 arcsec [2.96 σ]
KicOffset-rm: 2.268 arcsec [3.14 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.12 [2/16]
DiffImageOverlap-fno: 1.00 [17/17]

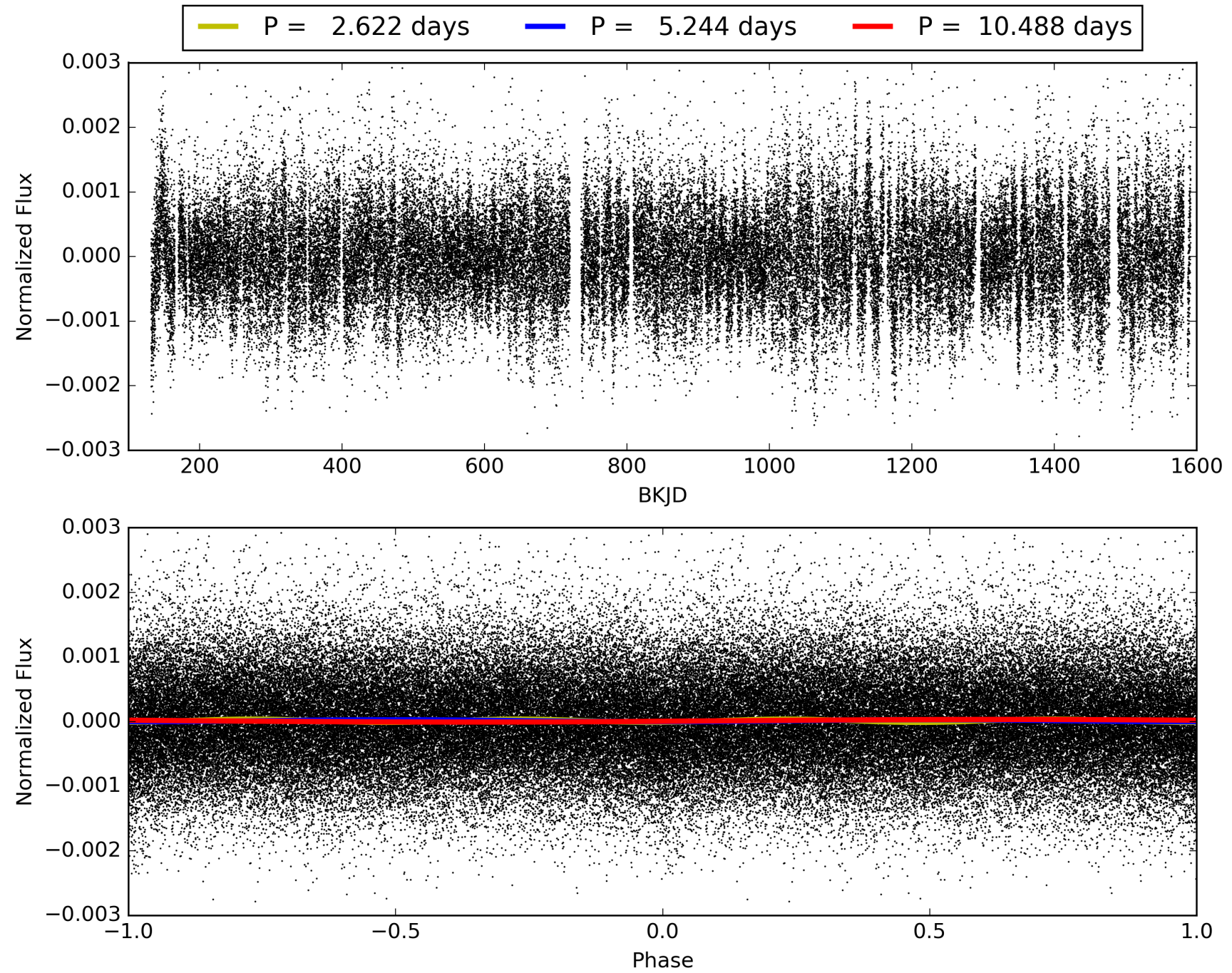
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:52:33 Z

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

TCE 006285397-01, PDC Light Curves

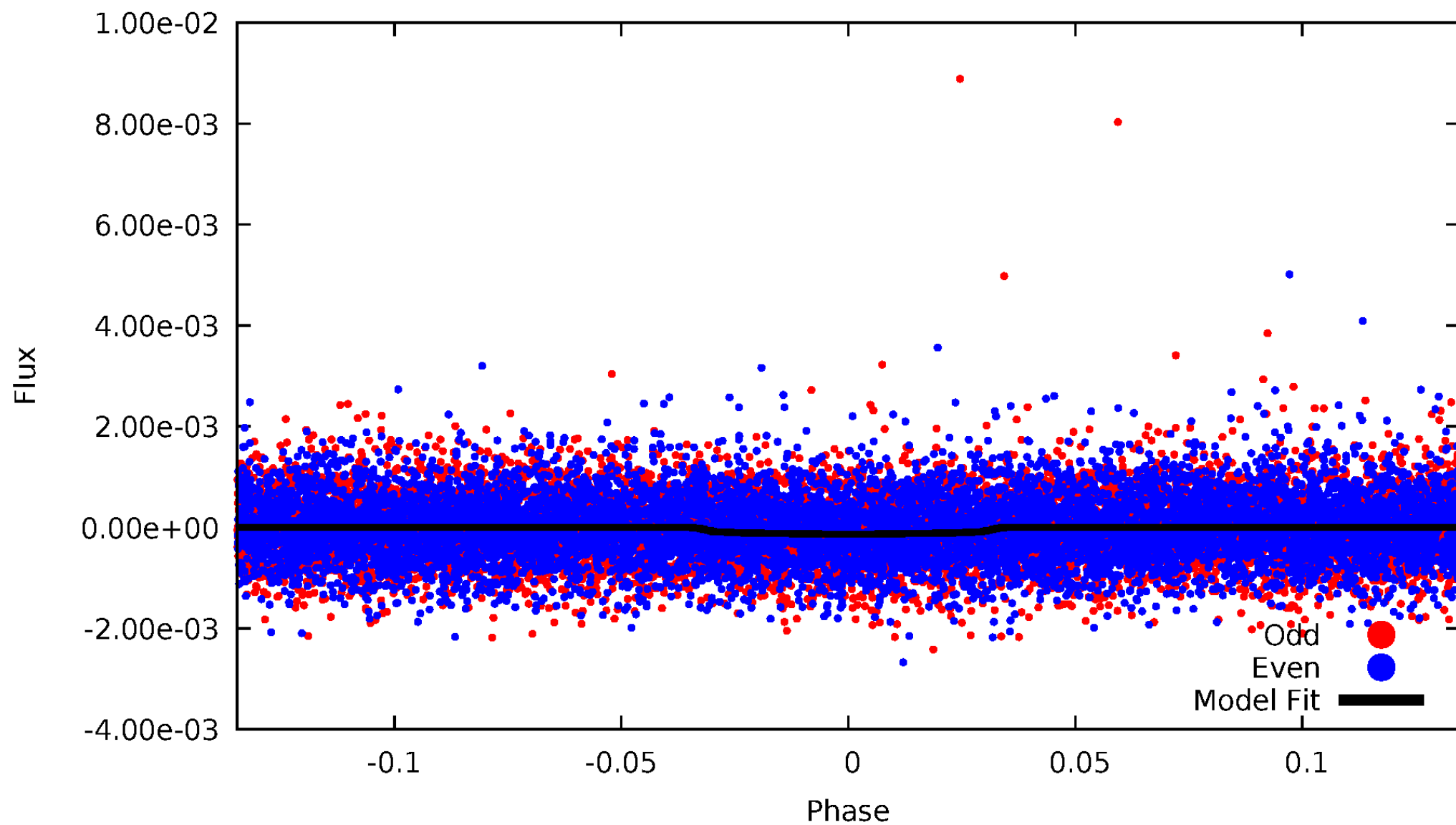


TCE 006285397-01



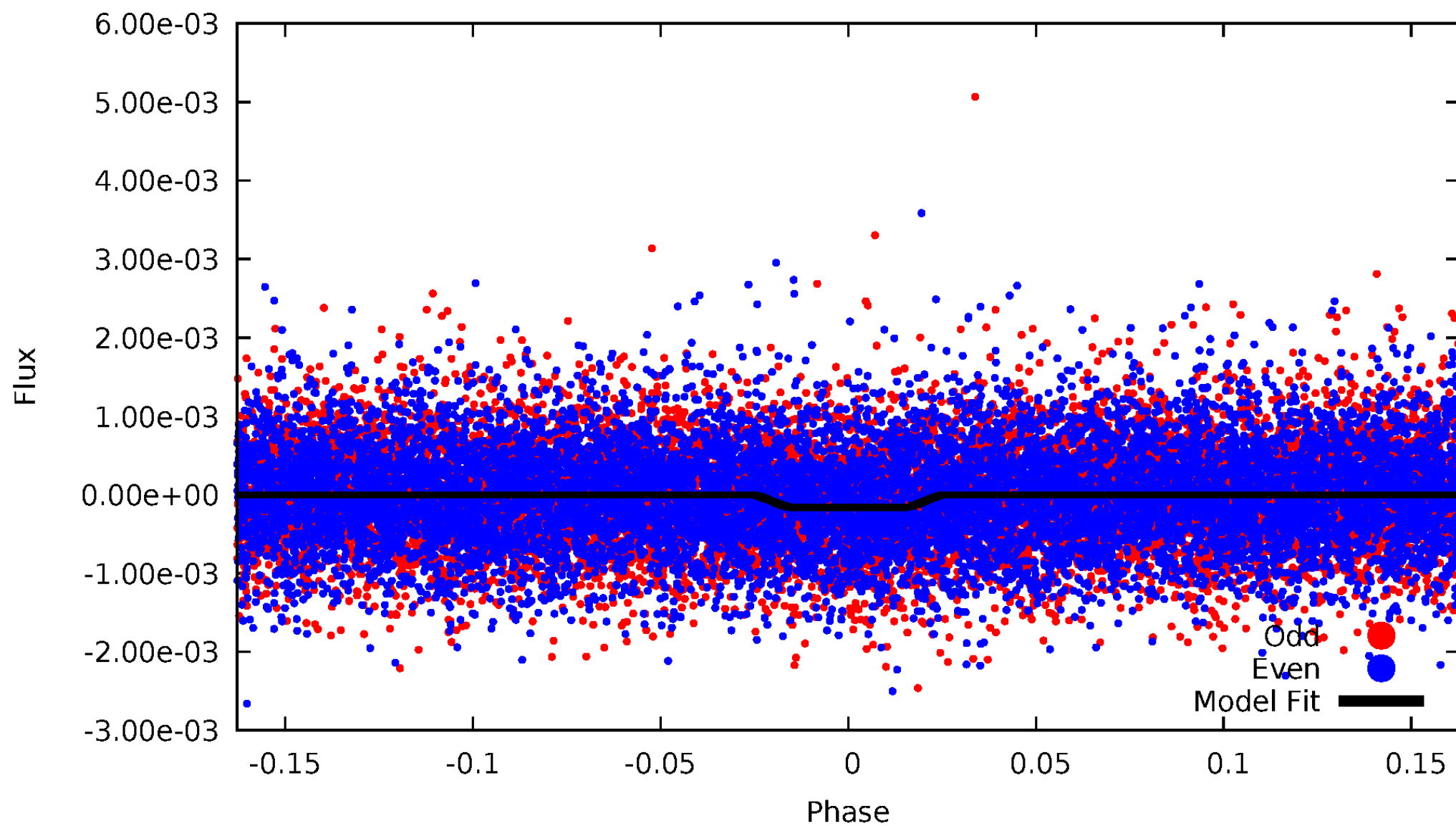
DV Odd/Even

TCE 006285397-01



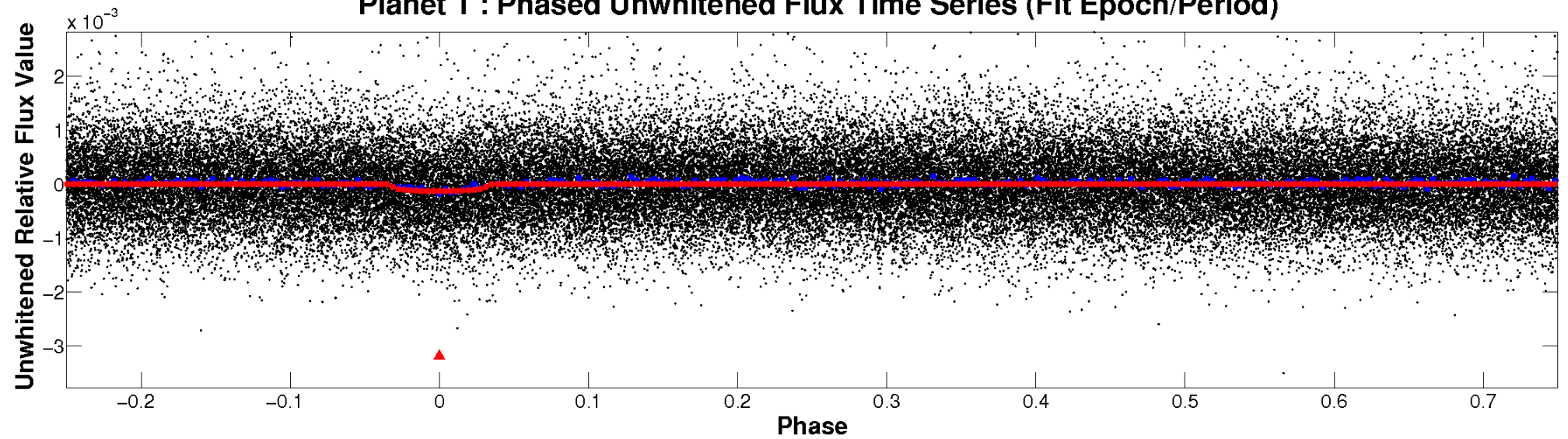
ALT Odd/Even

TCE 006285397-01

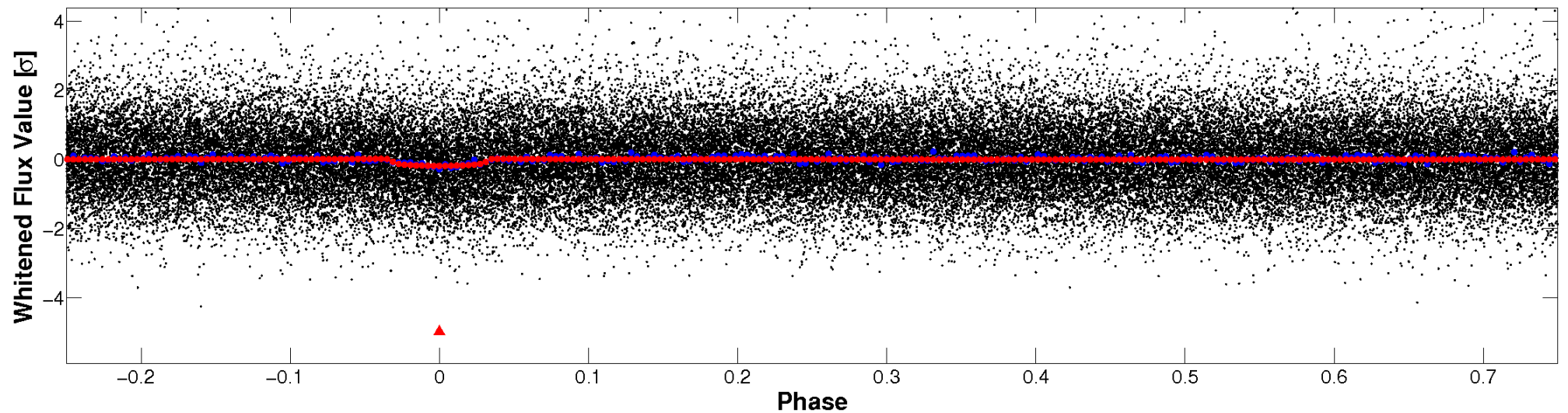


Non-Whitened Vs. Whitened Light Curve

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

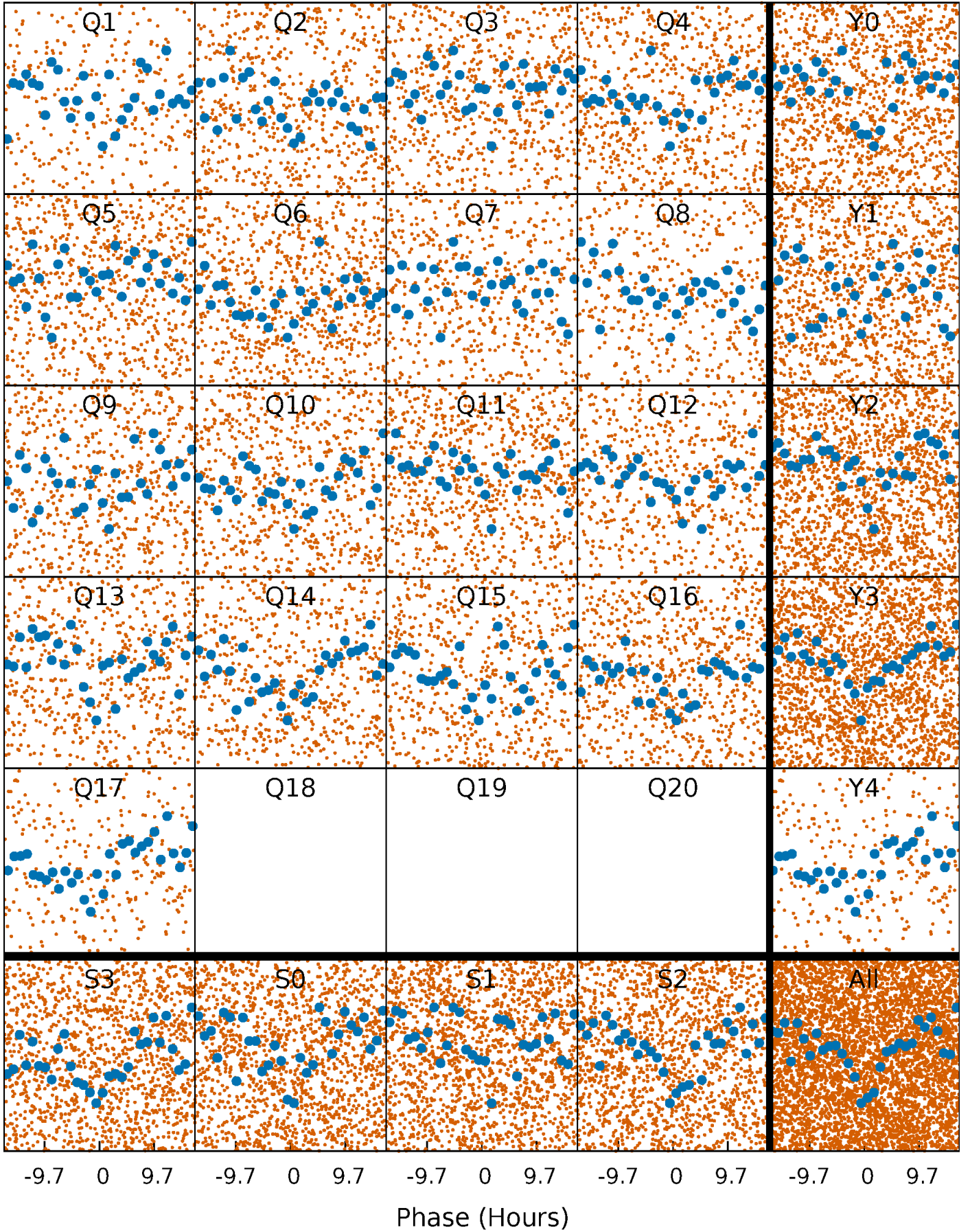


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



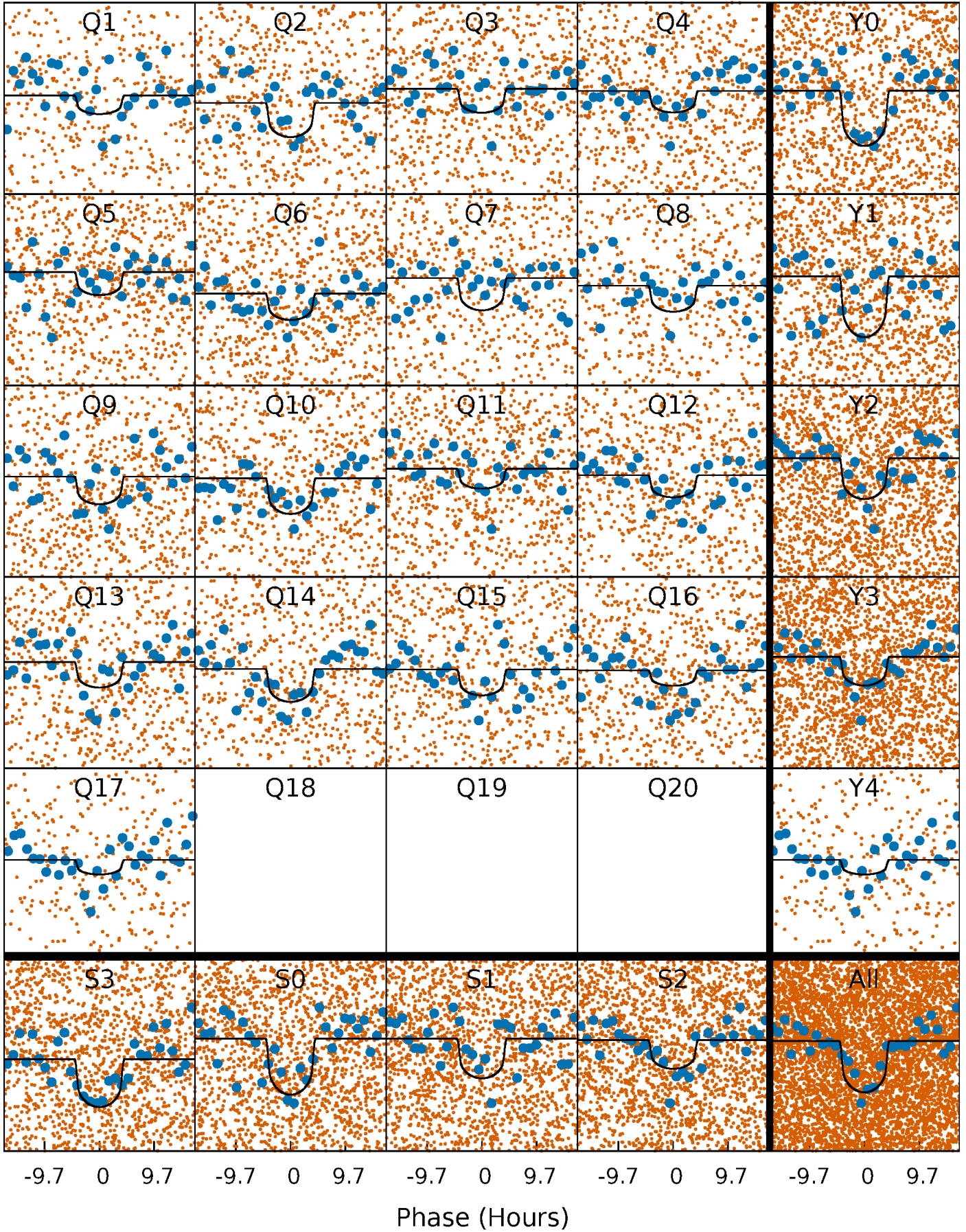
PDC Quarter-Phased Transit Curves

TCE 006285397-01 P= 5.243831 Days $T_0=132.686245$ (BKJD)



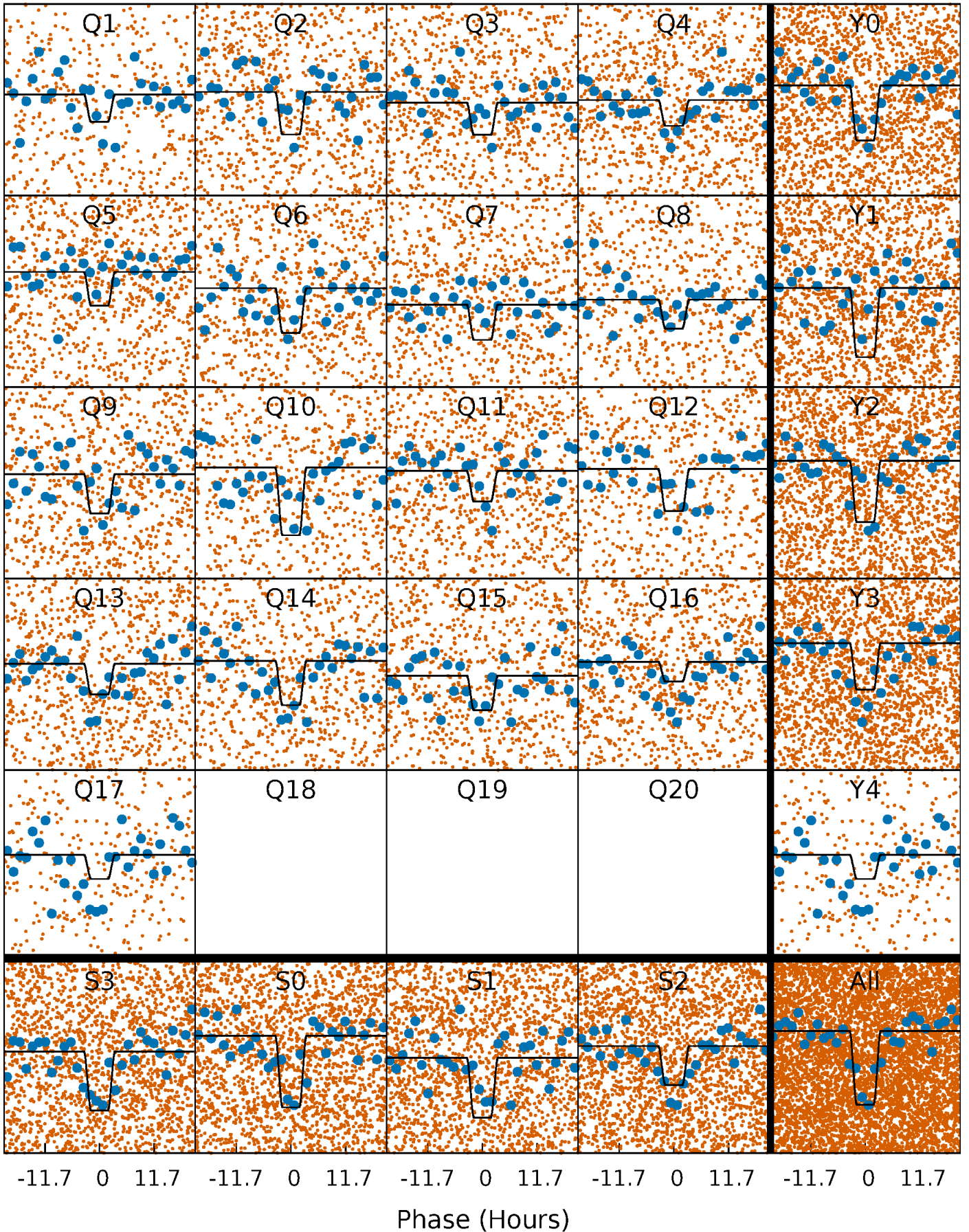
DV Quarter-Phased Transit Curves

TCE 006285397-01 P= 5.243831 Days $T_0=132.686245$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

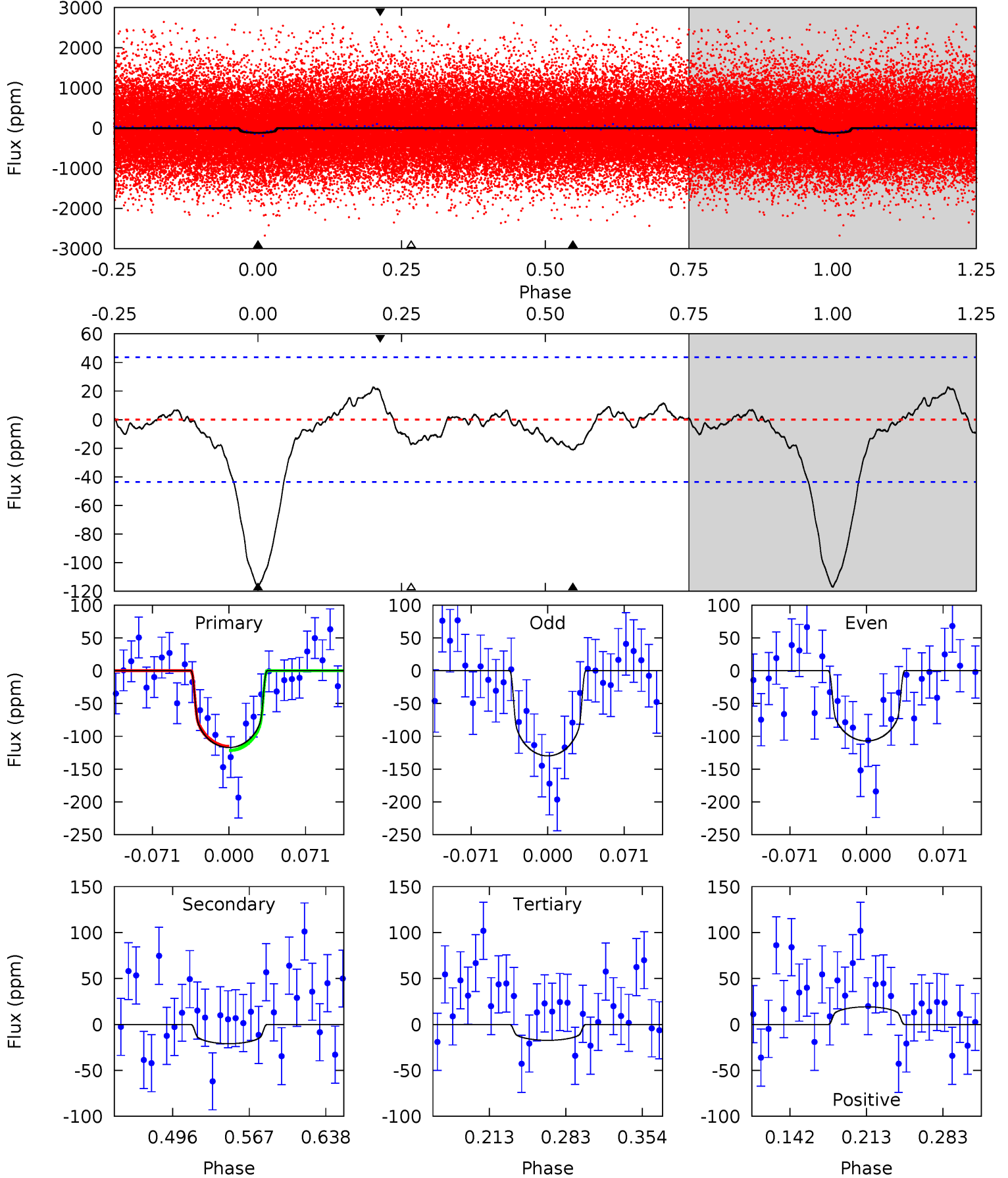
TCE 006285397-01 P= 5.243839 Days $T_0=132.686995$ (BKJD)



DV Model-Shift Uniqueness Test

006285397-01, P = 5.243831 Days, E = 127.442414 Days

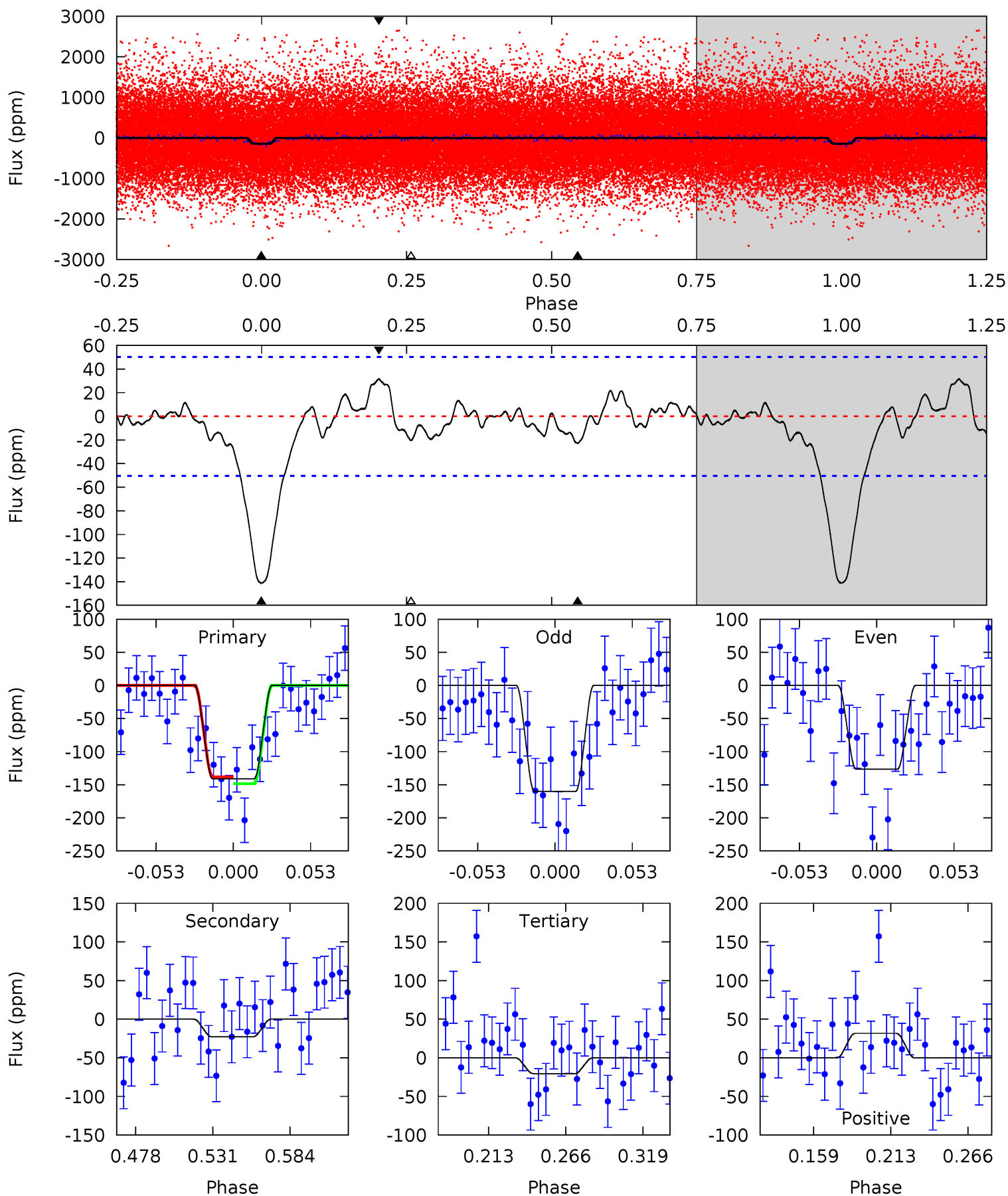
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	2.23	1.84	2.04	4.64	1.81	0.88	10.6	10.4	0.39	0.19	1.21	0.98	0.16	0.34



Alt Model-Shift Uniqueness Test

006285397-01, P = 5.243839 Days, E = 127.443156 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	2.13	1.91	2.95	4.70	1.93	1.07	11.3	10.2	0.22	-0.82	1.57	0.99	0.18	0.48



Stellar Parameters For KIC 006285397

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} \text{ (g}\cdot\text{cm}^{-3}\text{)}$
	4634^{+125}_{-139}	$4.597^{+0.052}_{-0.028}$	$-0.120^{+0.300}_{-0.300}$	$0.689^{+0.050}_{-0.061}$	$0.685^{+0.070}_{-0.051}$	$2.945^{+0.692}_{-0.359}$
	+3%/-3%	+1%/-1%	+250%/-250%	+7%/-9%	+10%/-7%	+23%/-12%
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 006285397-01 / KOI 6685.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-21 ± 9	$0.93^{+0.39}_{-0.39}$	1034^{+31}_{-35}	3279^{+677}_{-437}	37^{+77}_{-22}
Alt.	-23 ± 11	$0.95^{+0.41}_{-0.38}$	1035^{+34}_{-35}	3251^{+650}_{-414}	35^{+74}_{-21}

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 $A_{obs} \gg 1.0$

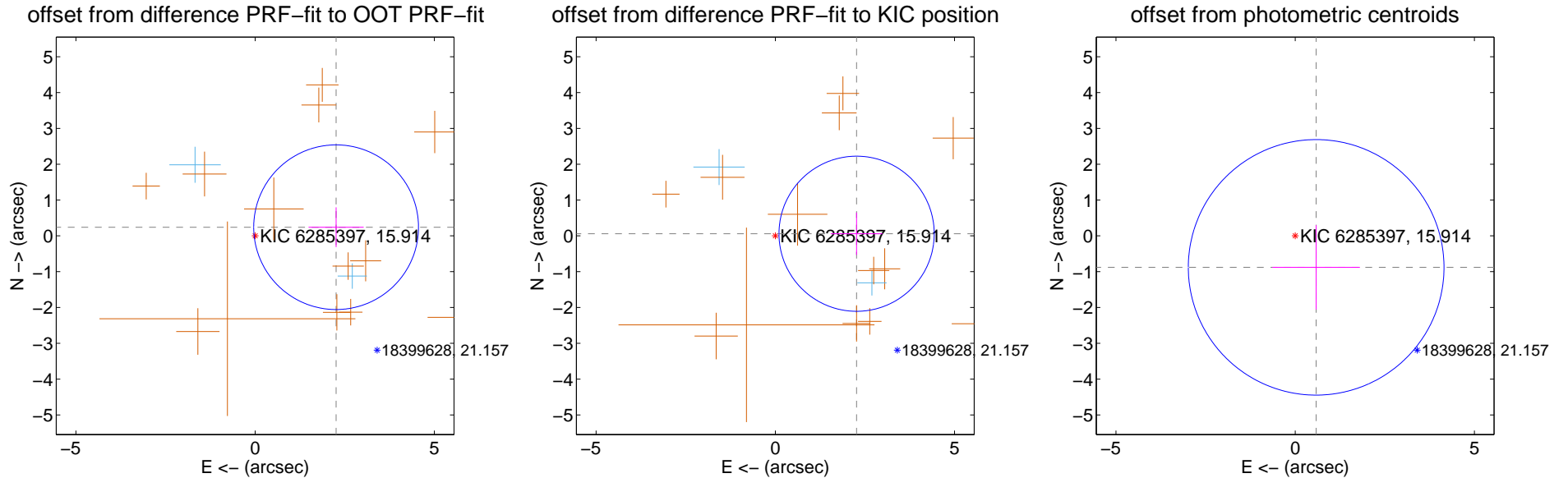
DV Centroid Data

Supplemental centroid analysis for 006285397-01. Kepler magnitude: 15.91. Transit SNR 10.39

There are 2 quarters with good PRF difference image offsets

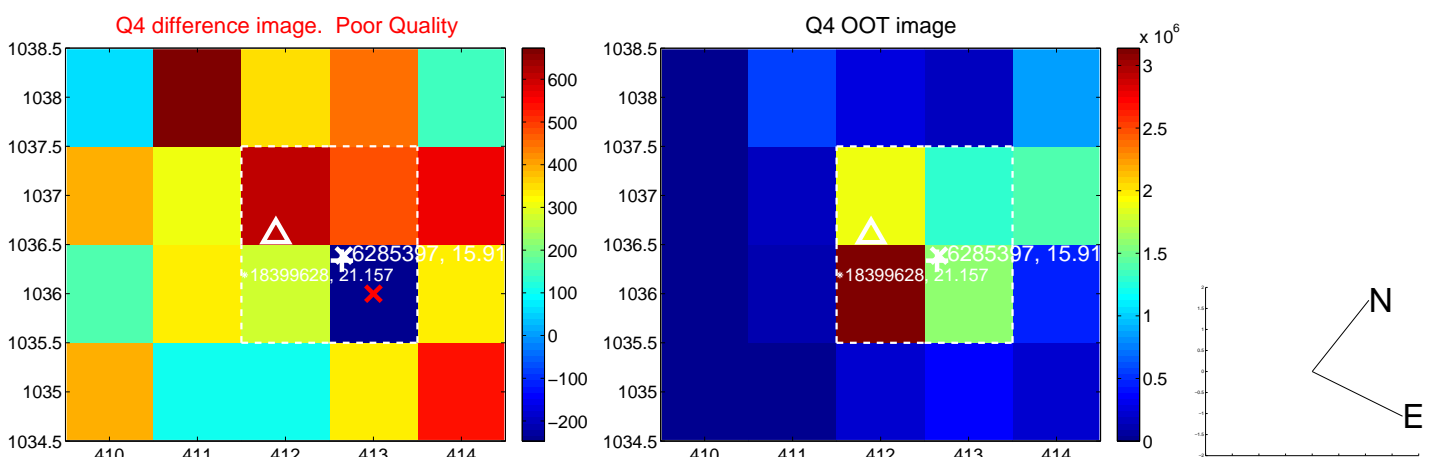
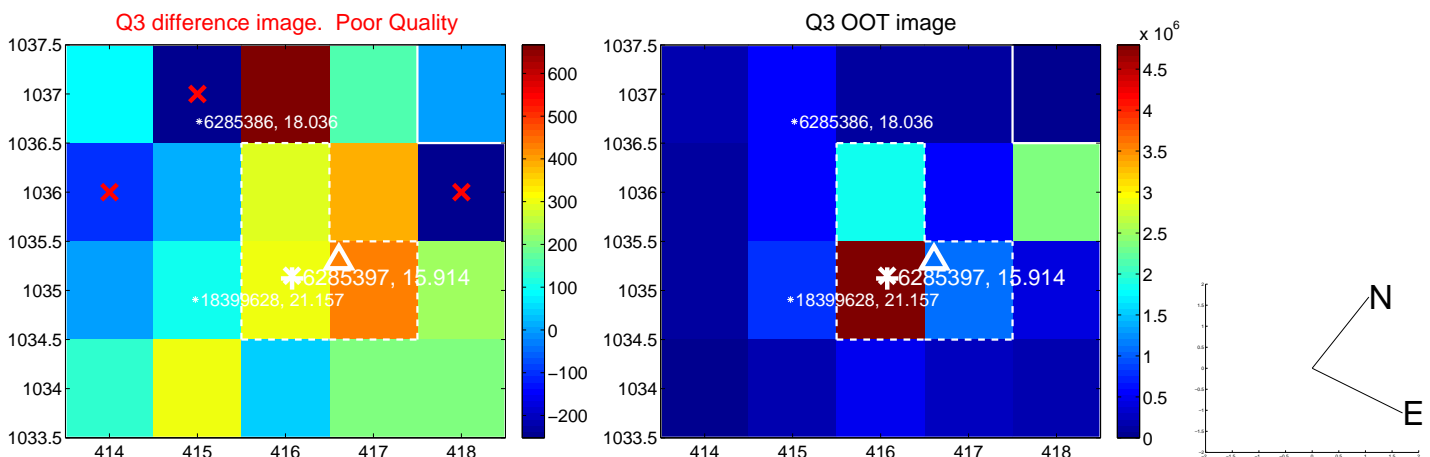
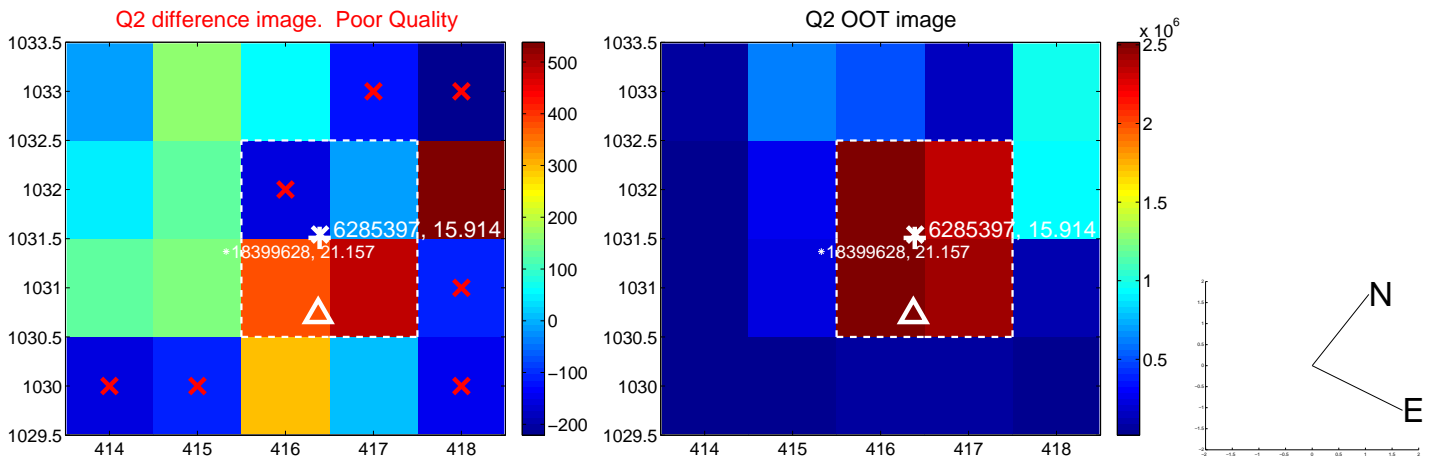
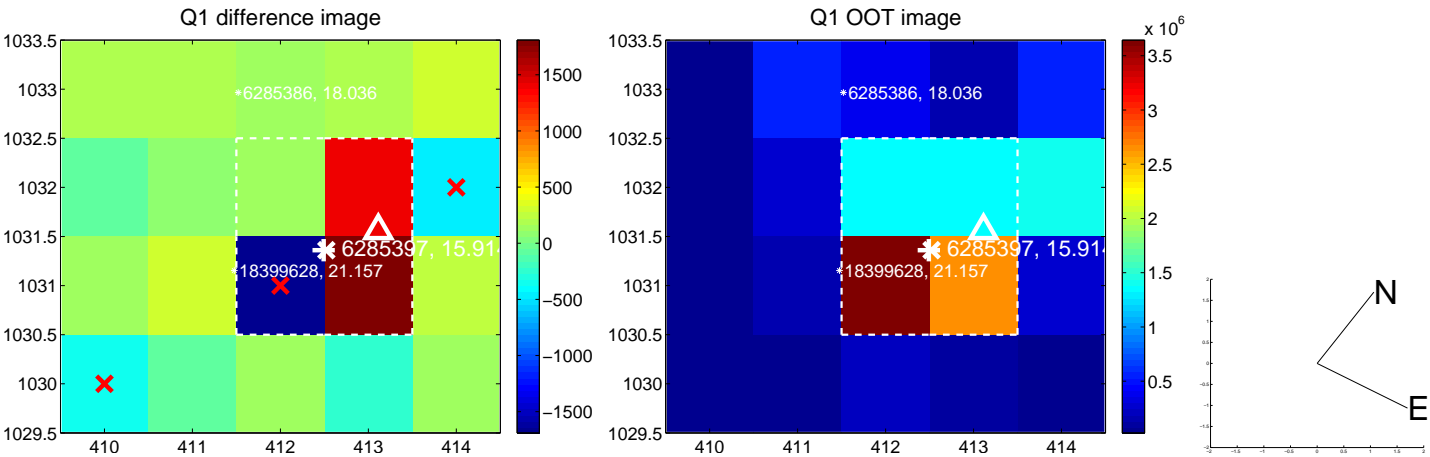
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.271 ± 0.766	2.96	-2.258 ± 0.769	0.241 ± 0.554
PRF-fit source offset from KIC position	2.268 ± 0.722	3.14	-2.267 ± 0.722	0.059 ± 0.591
photometric centroid source offset	1.06 ± 1.19	0.89	-0.58 ± 1.22	-0.88 ± 1.17

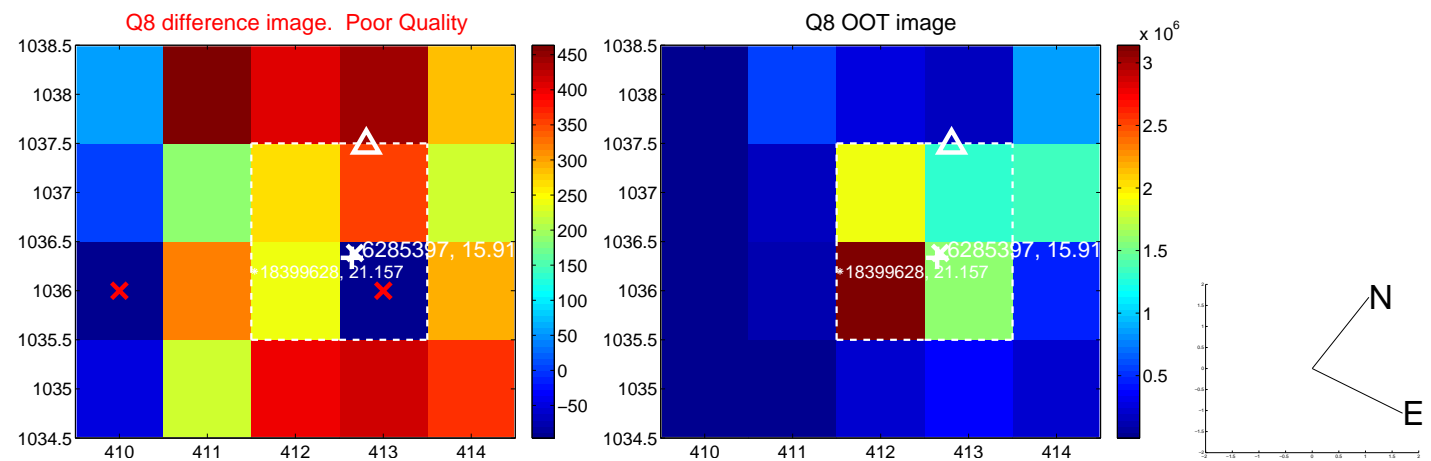
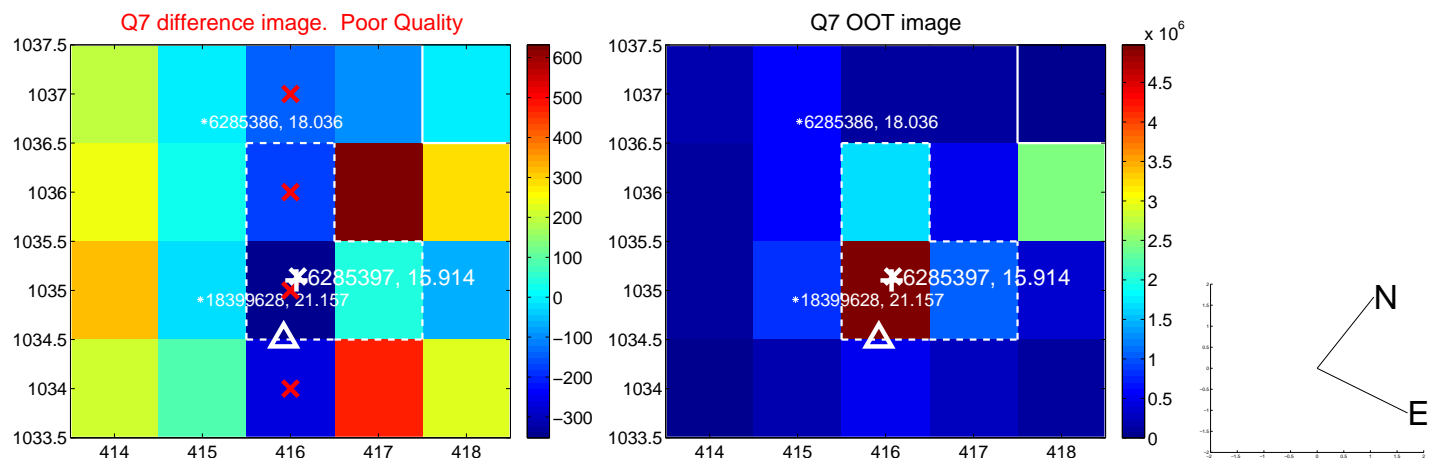
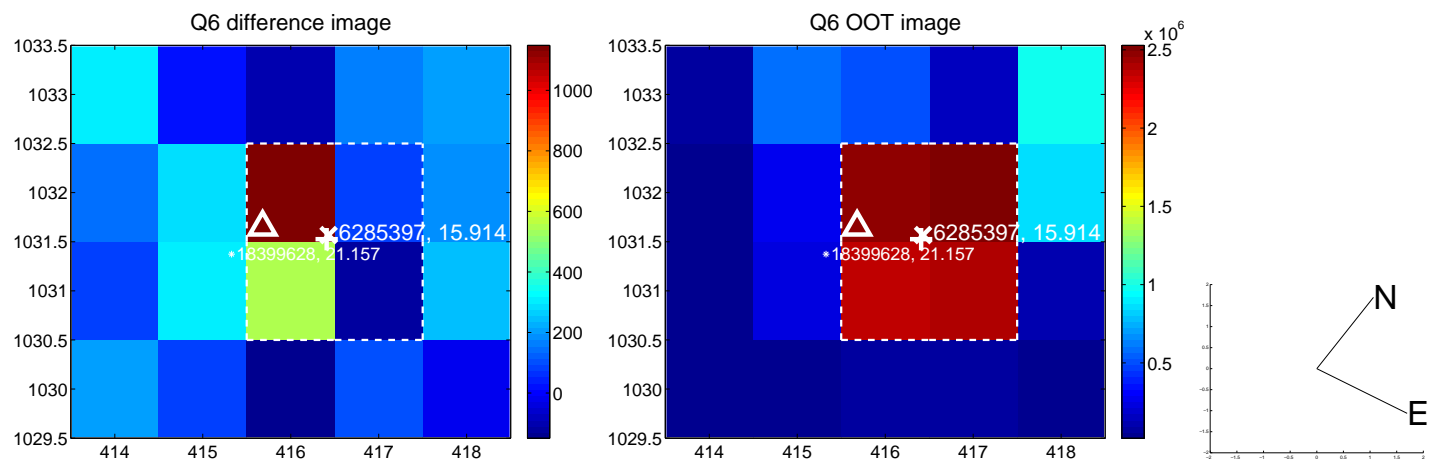
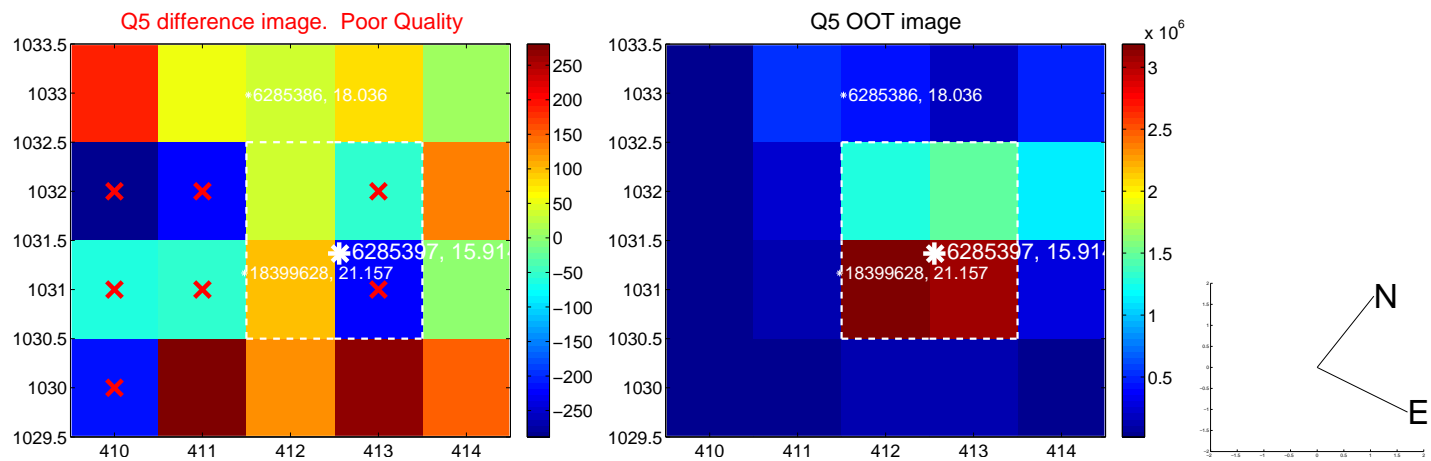


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

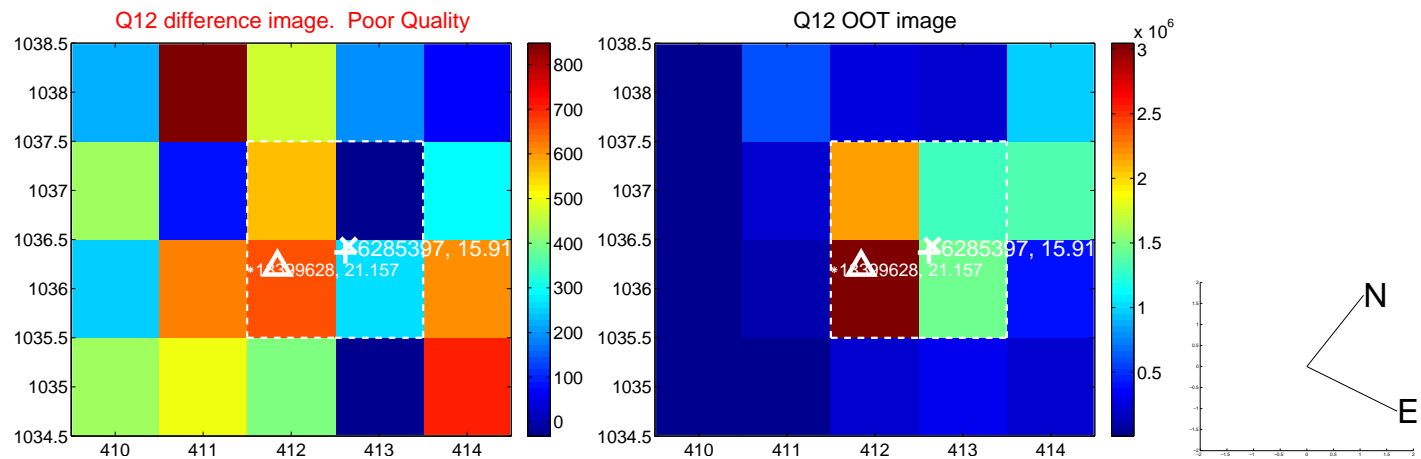
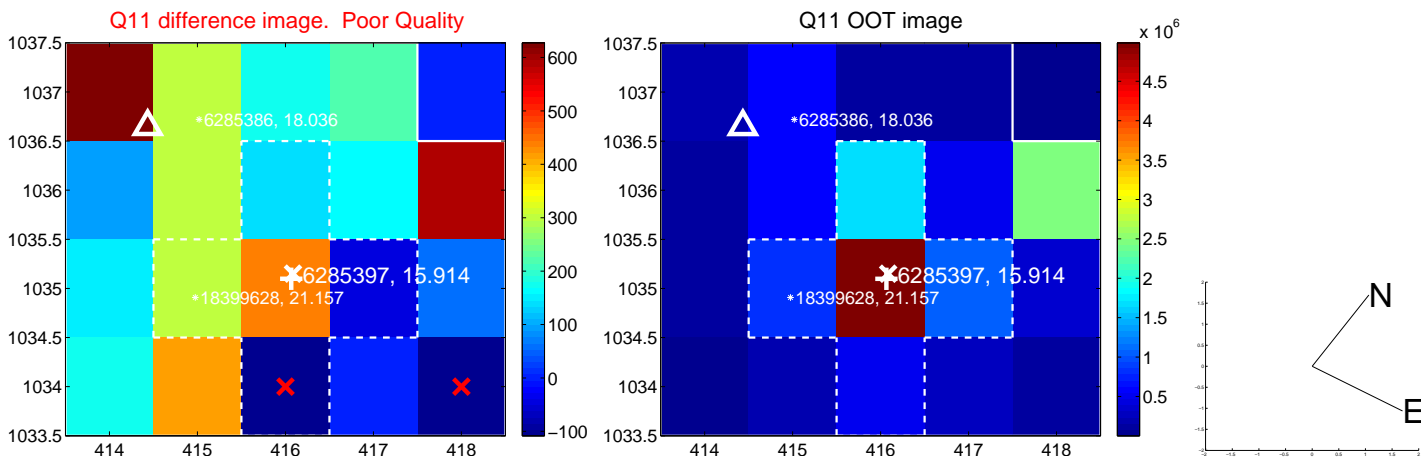
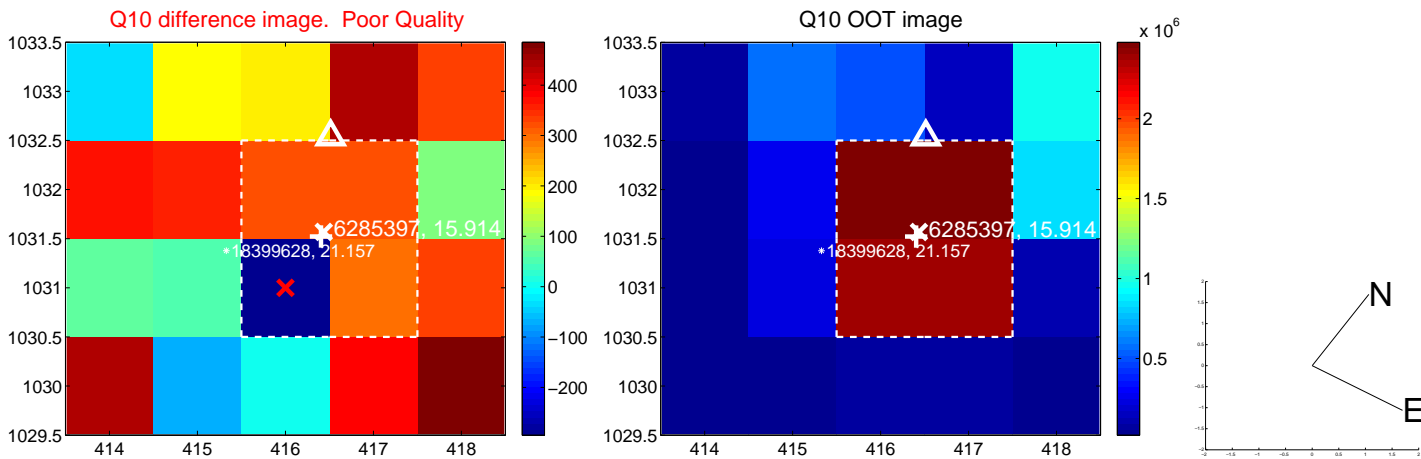
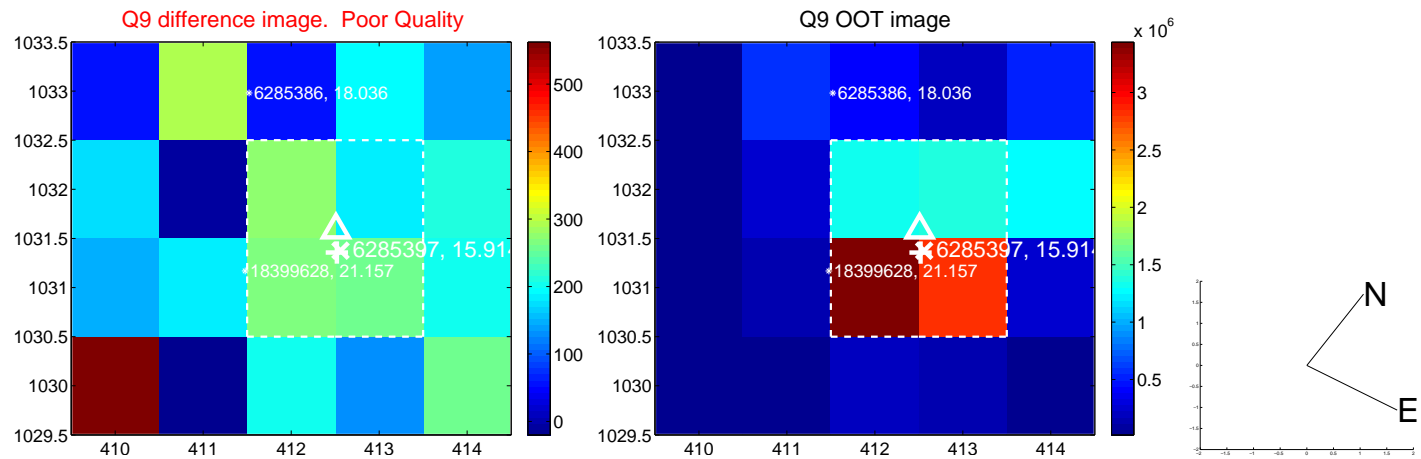
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



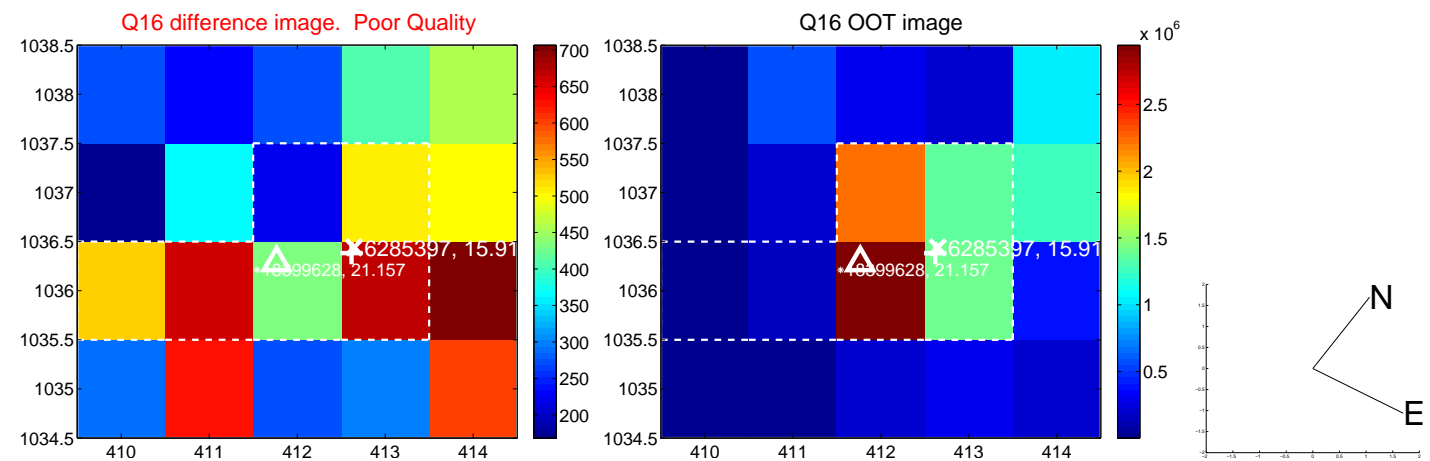
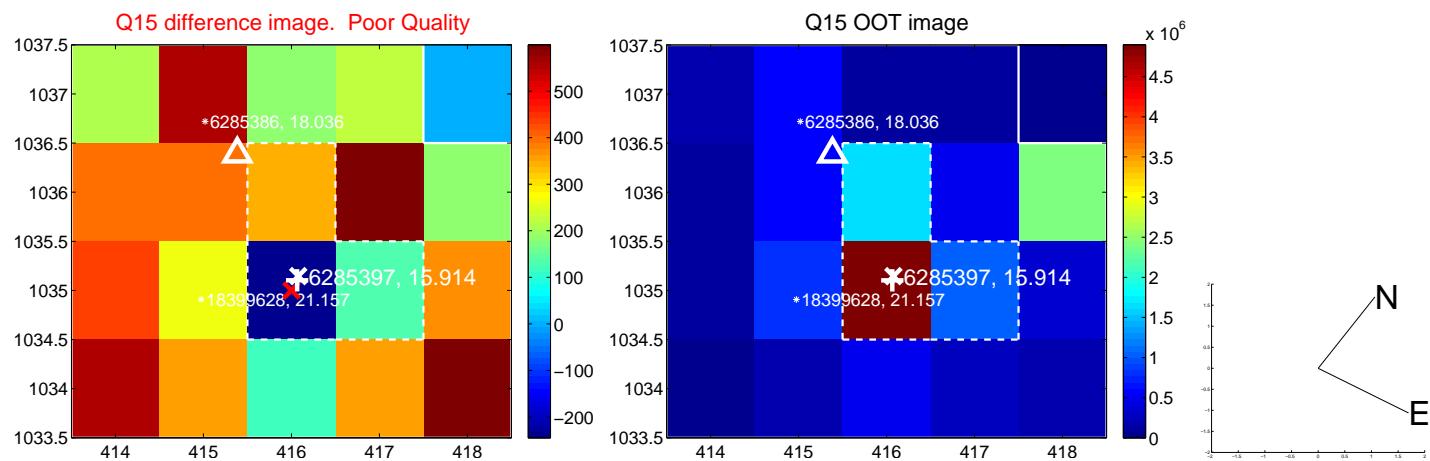
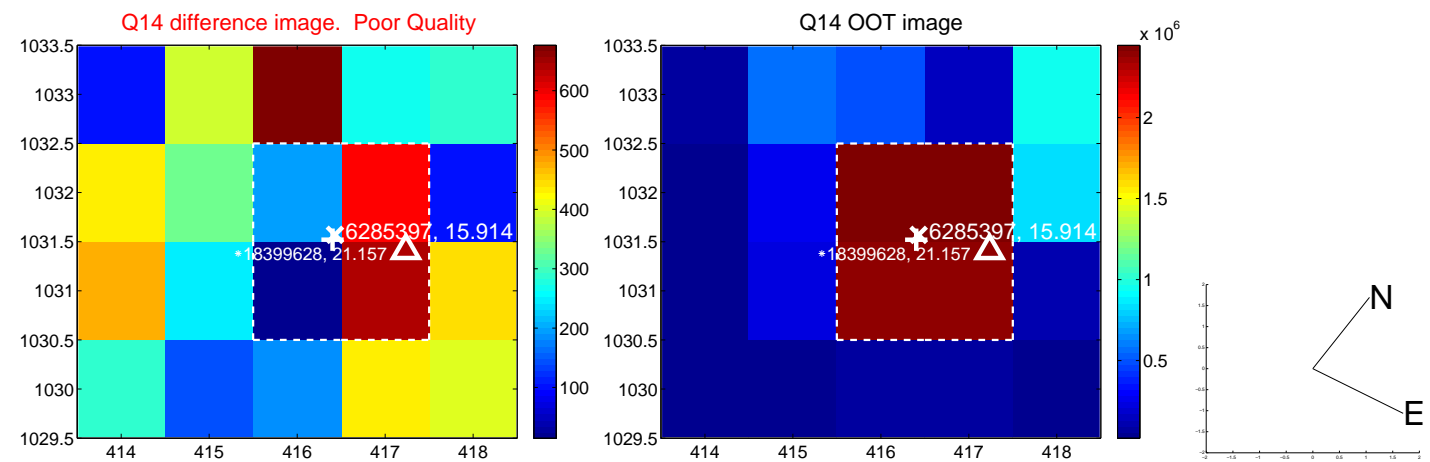
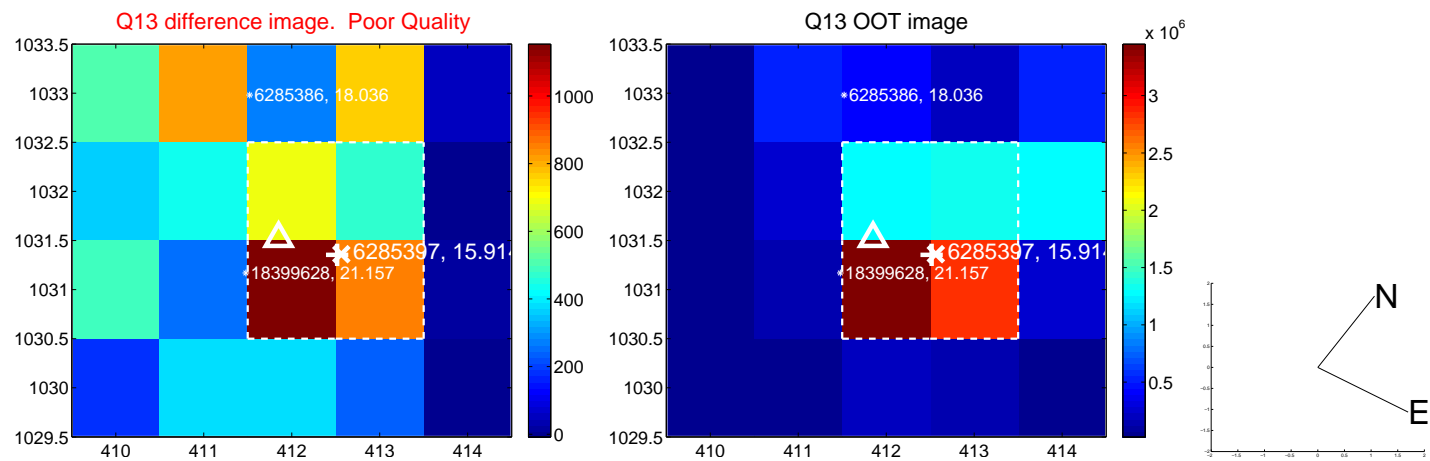
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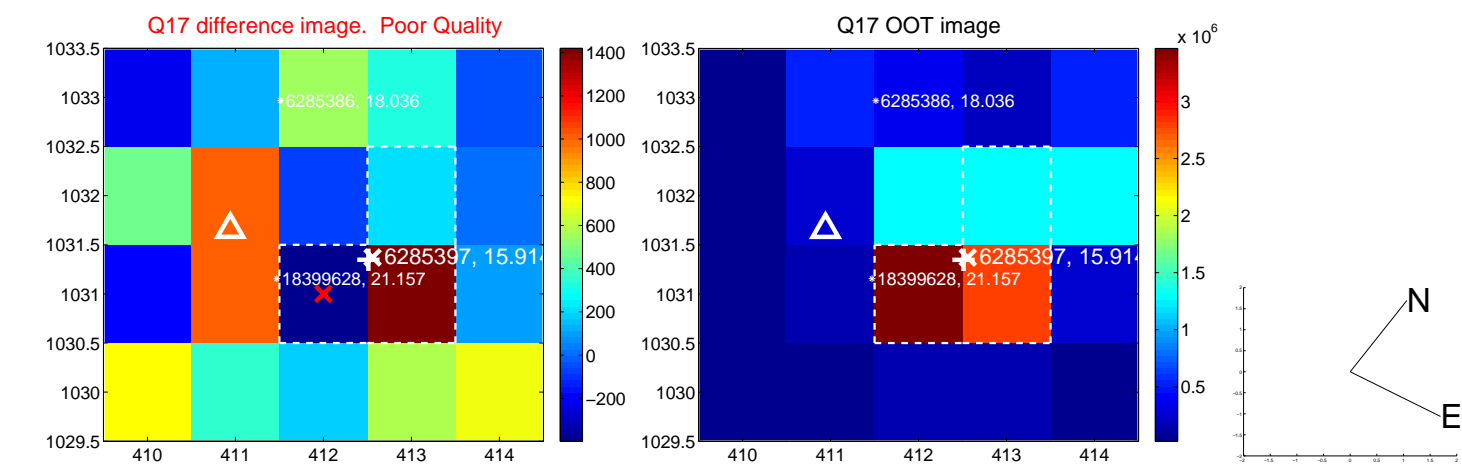
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



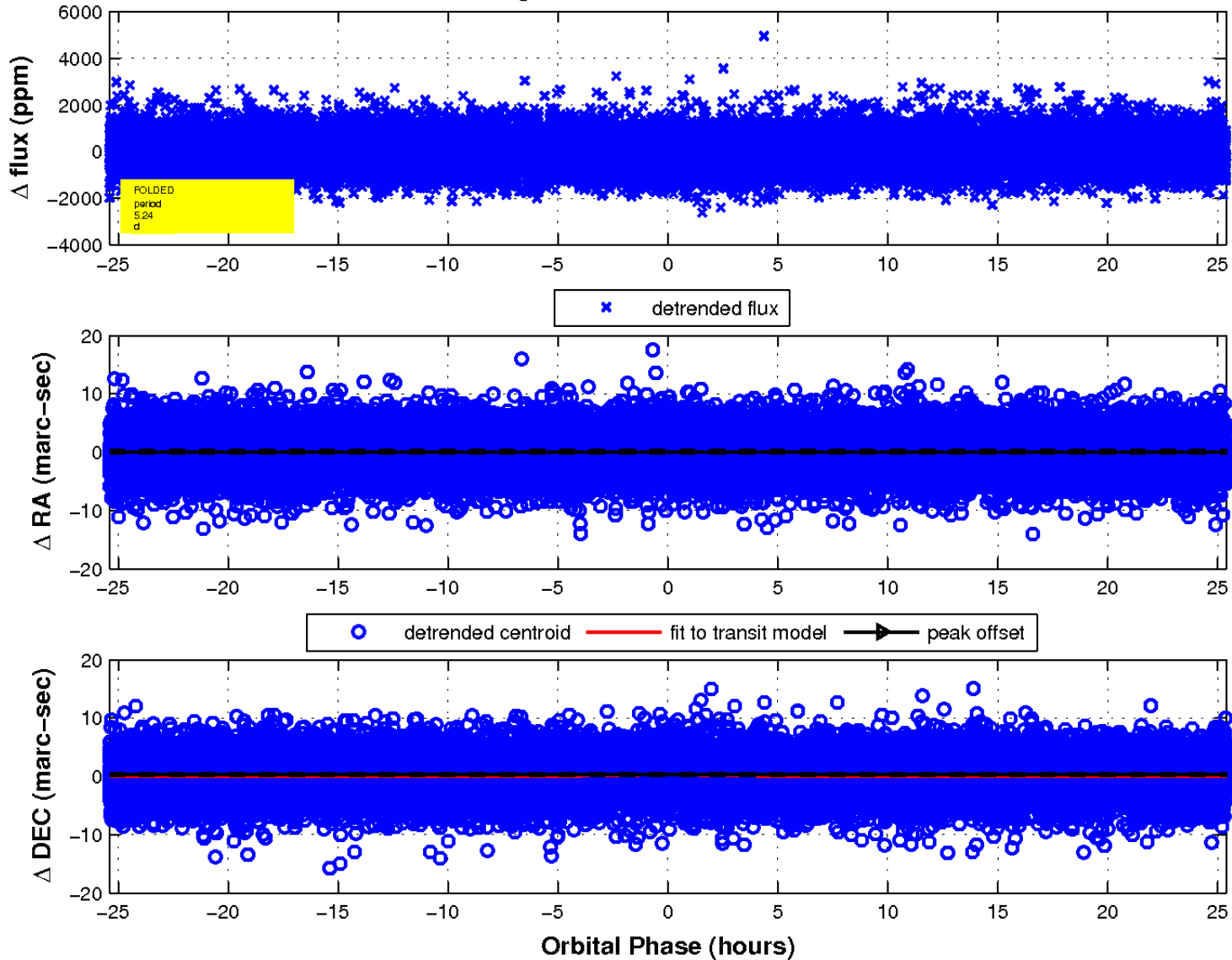
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

