

KIC 006205566

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})
006205566-01	OBS	7772.01	3.722926	134.626909	50.7	9.814	7.5	8.5	0.93	6046	0.79	461.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006205566-01	OBS	FP	0.00	1	0	1	1	LPP_DV—HALO_GHOST—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.

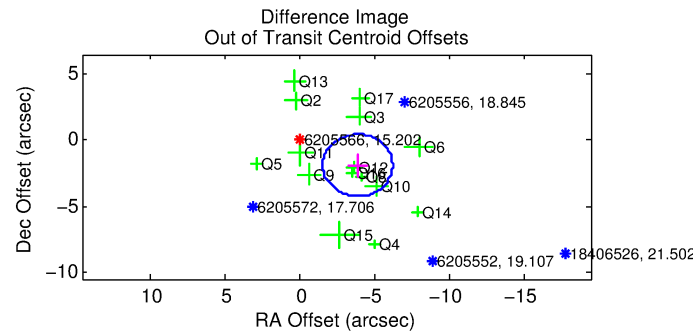
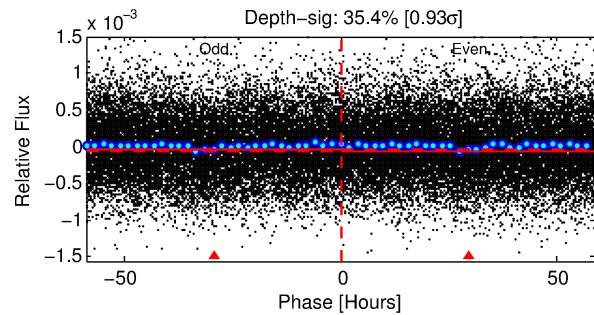
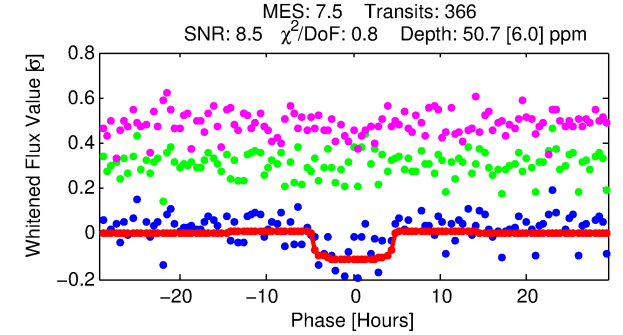
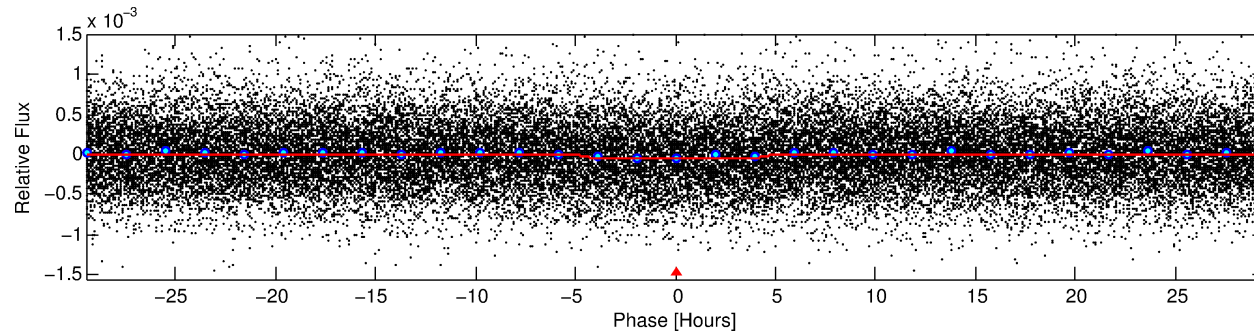
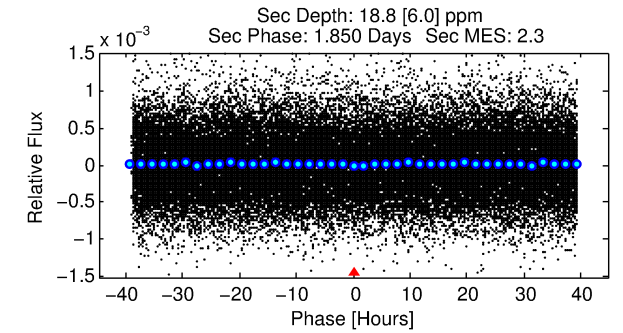
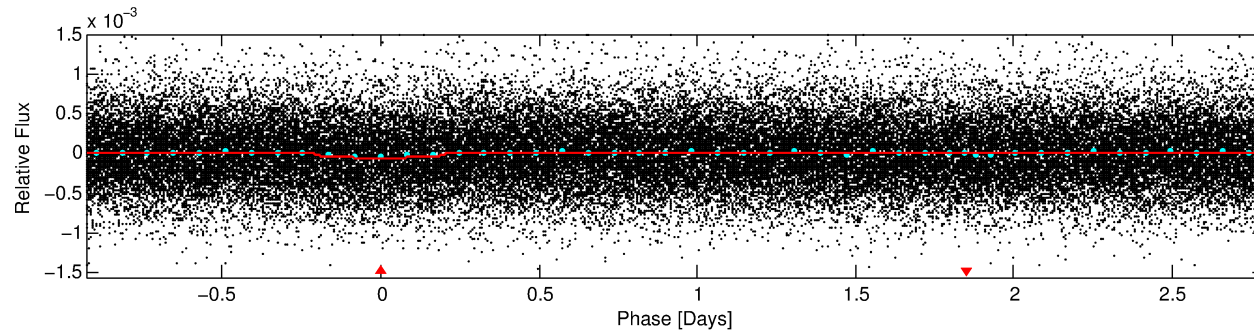
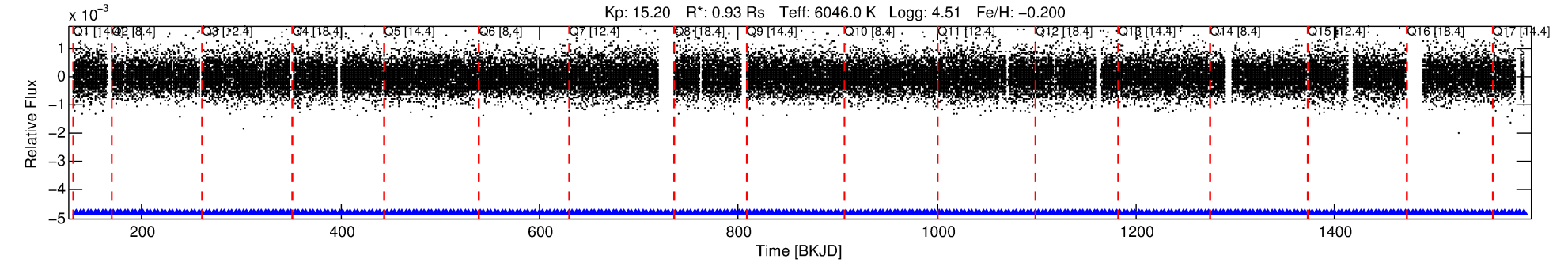
Ephemeris Match Information For 006205566-01

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
006205566-01	6205566	006205460-pri	6205460	1:1	100.2	-10	23	12.75	15.21	12212.00	Direct-PRF	0	1.42	0.14

Notes: $P_1:P_2$ 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. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 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: 6205566 Candidate: 1 of 1 Period: 3.723 d



DV Fit Results:

Period = 3.72293 [0.00007] d
Epoch = 134.6269 [0.0133] BKJD
Rp/R* = 0.0078 [0.0022]
a/R* = 1.56 [1.40]
b = 0.91 [0.28]
Seff = 461.64 [172.72]
Teq = 1182 [111] K
Rp = 0.79 [0.32] Re
a = 0.0472 [0.0113] AU
Ag = 37.34 [27.79] [1.31 σ]
Teffp = 4517 [756] K [4.36 σ]

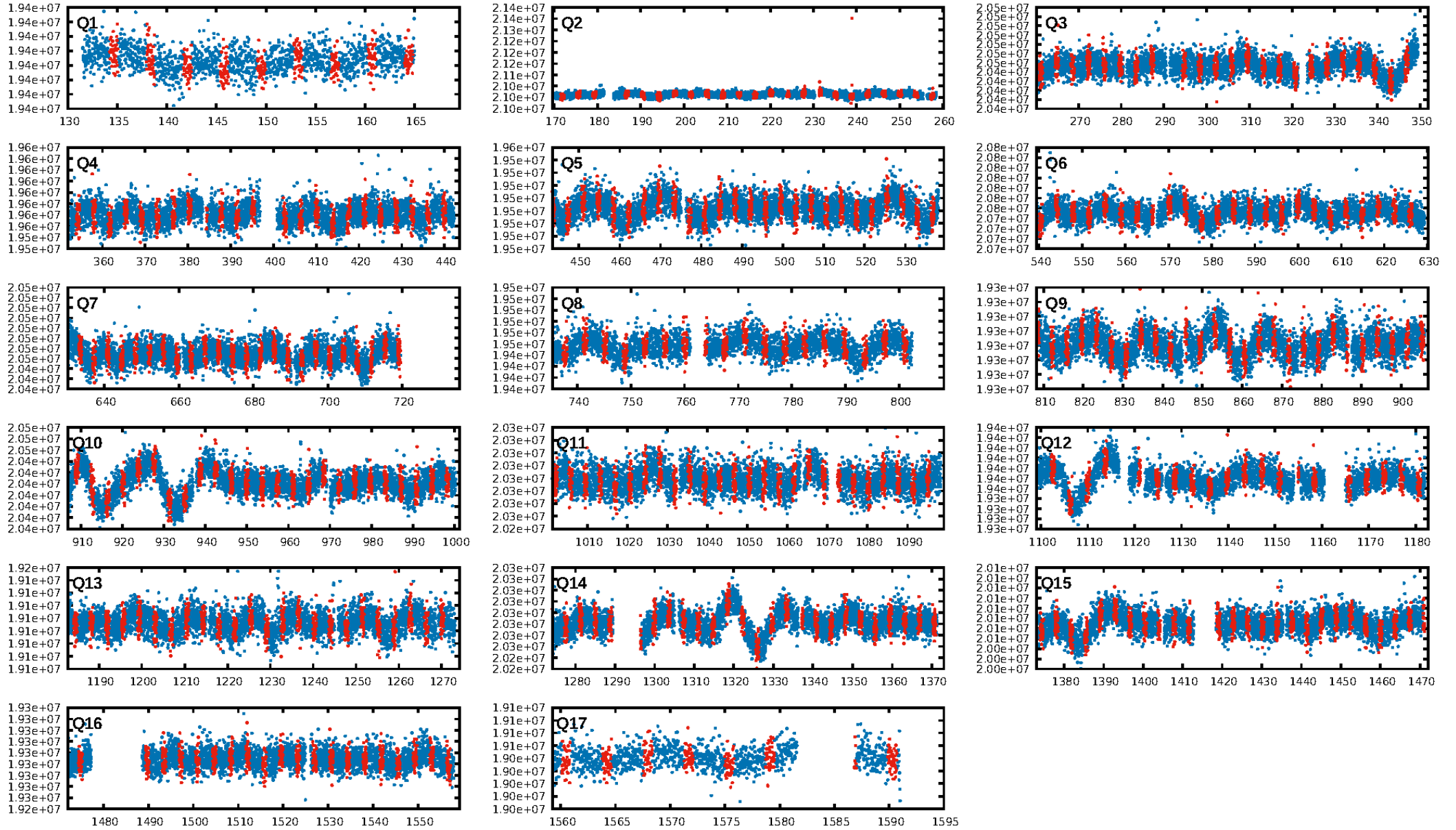
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.23e-14
RollingBand-fgt: 1.00 [350/350]
GhostDiagnostic-chr: 0.2134
Centroid-sig: 0.00%
Centroid-so: 4.052 arcsec [2.68 σ]
OotOffset-rm: 4.353 arcsec [5.58 σ]
KicOffset-rm: 4.428 arcsec [4.55 σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 1.00 [17/17]

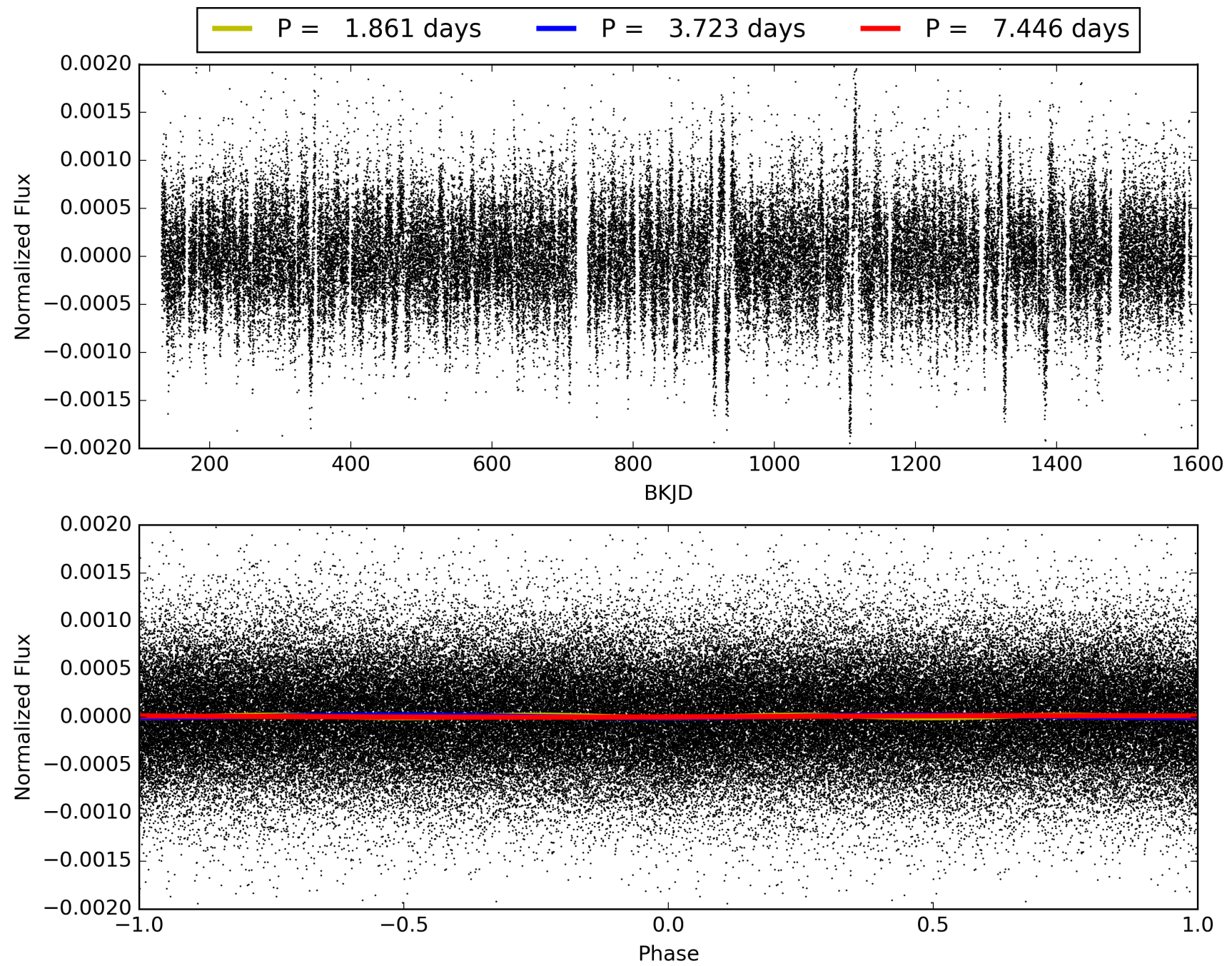
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:28:46 Z

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

TCE 006205566-01, PDC Light Curves

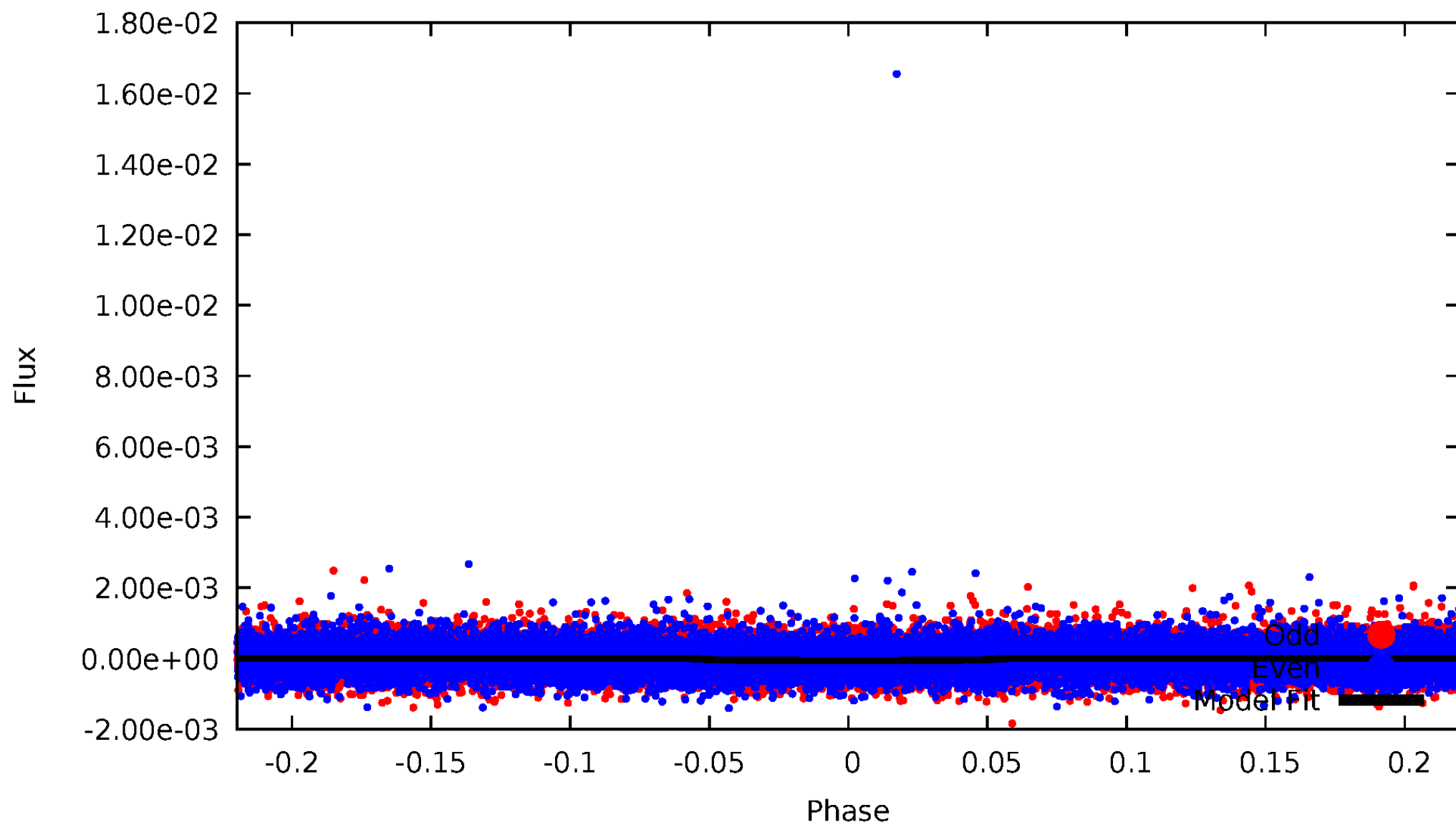


TCE 006205566-01



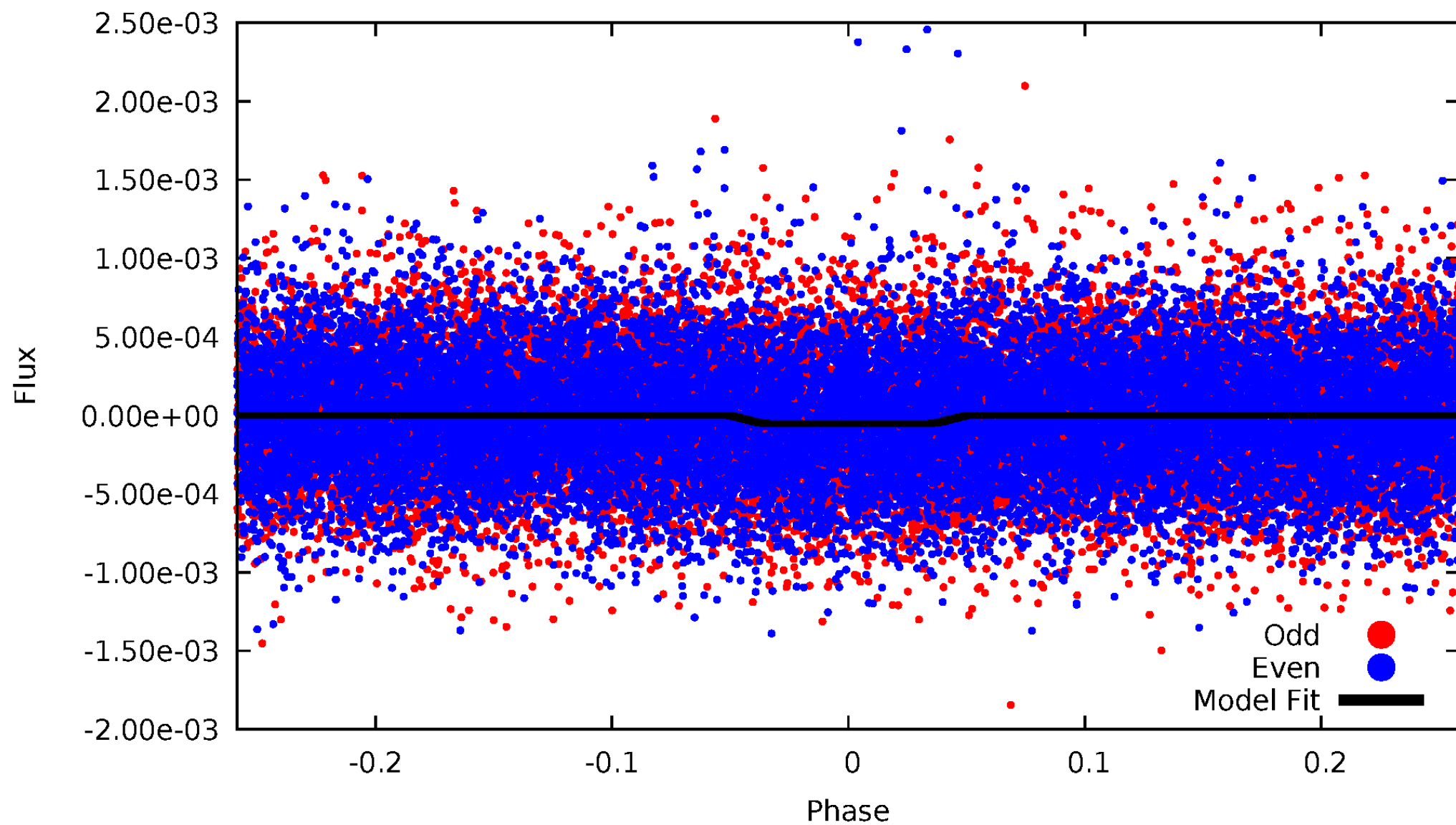
DV Odd/Even

TCE 006205566-01



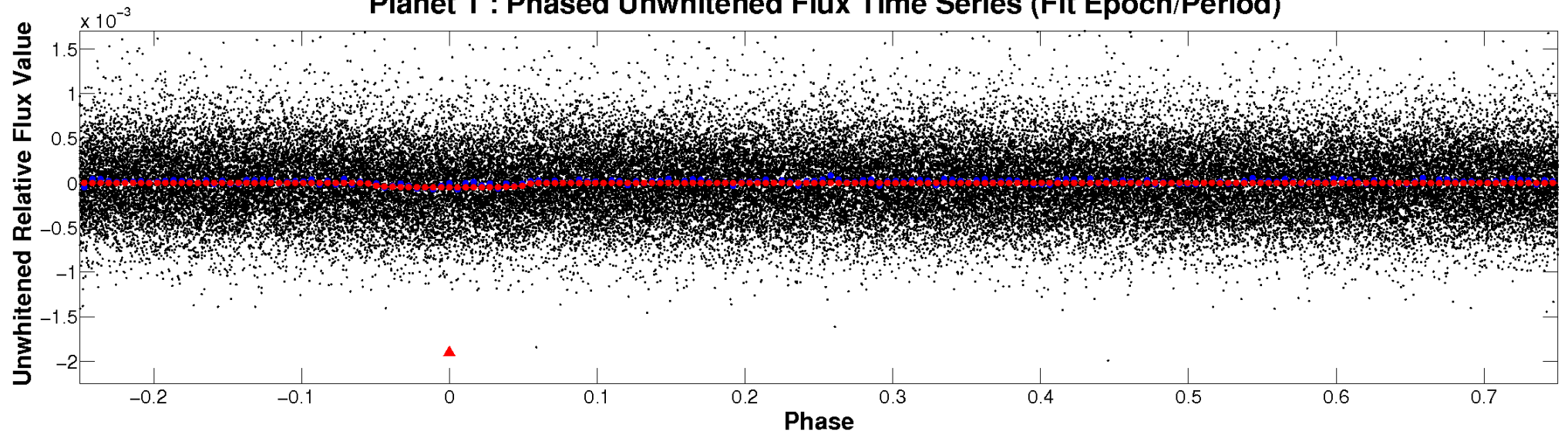
ALT Odd/Even

TCE 006205566-01

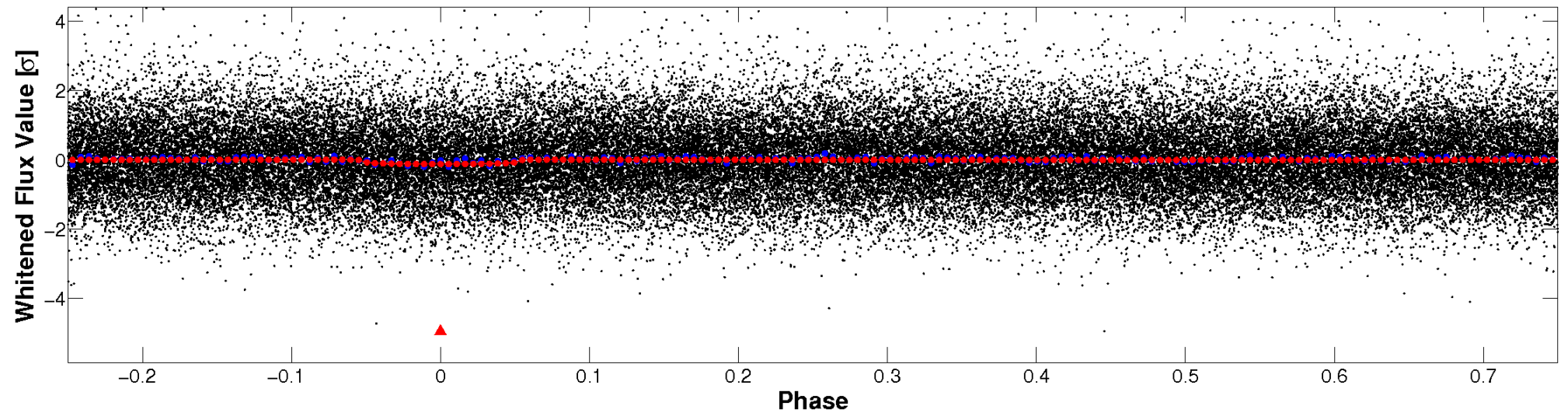


Non-Whitened Vs. Whitened Light Curve

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

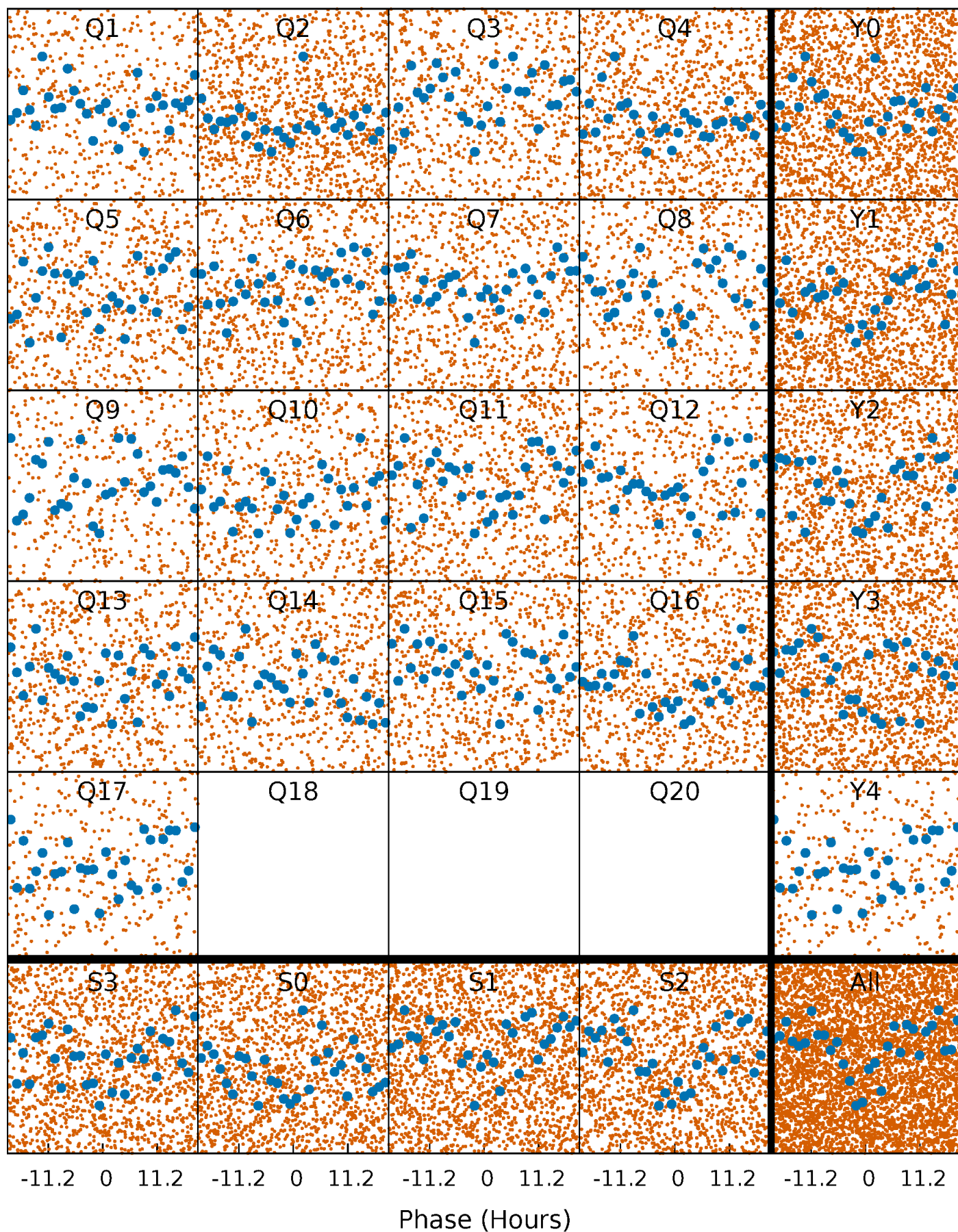


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



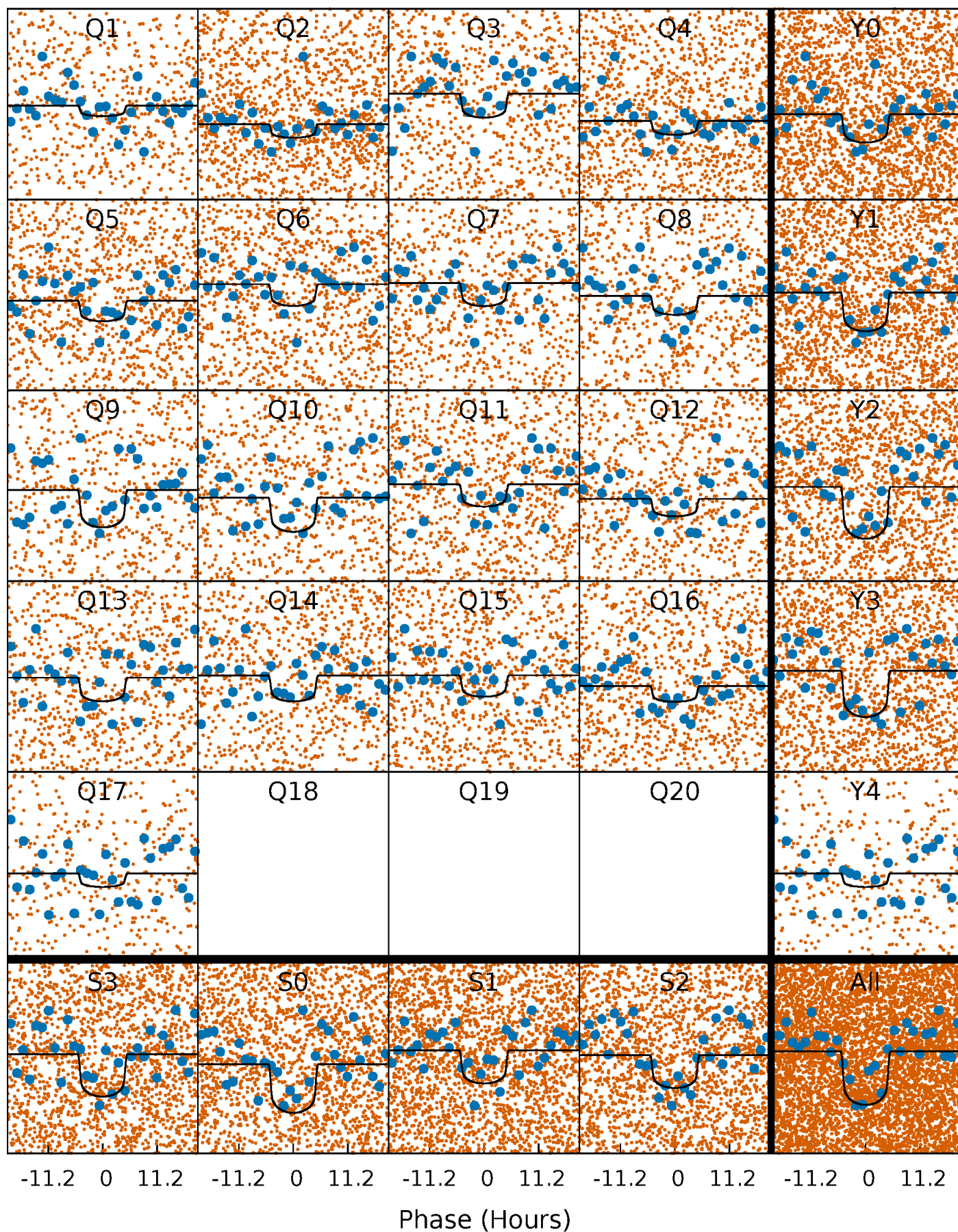
PDC Quarter-Phased Transit Curves

TCE 006205566-01 P= 3.722926 Days $T_0=134.626909$ (BKJD)



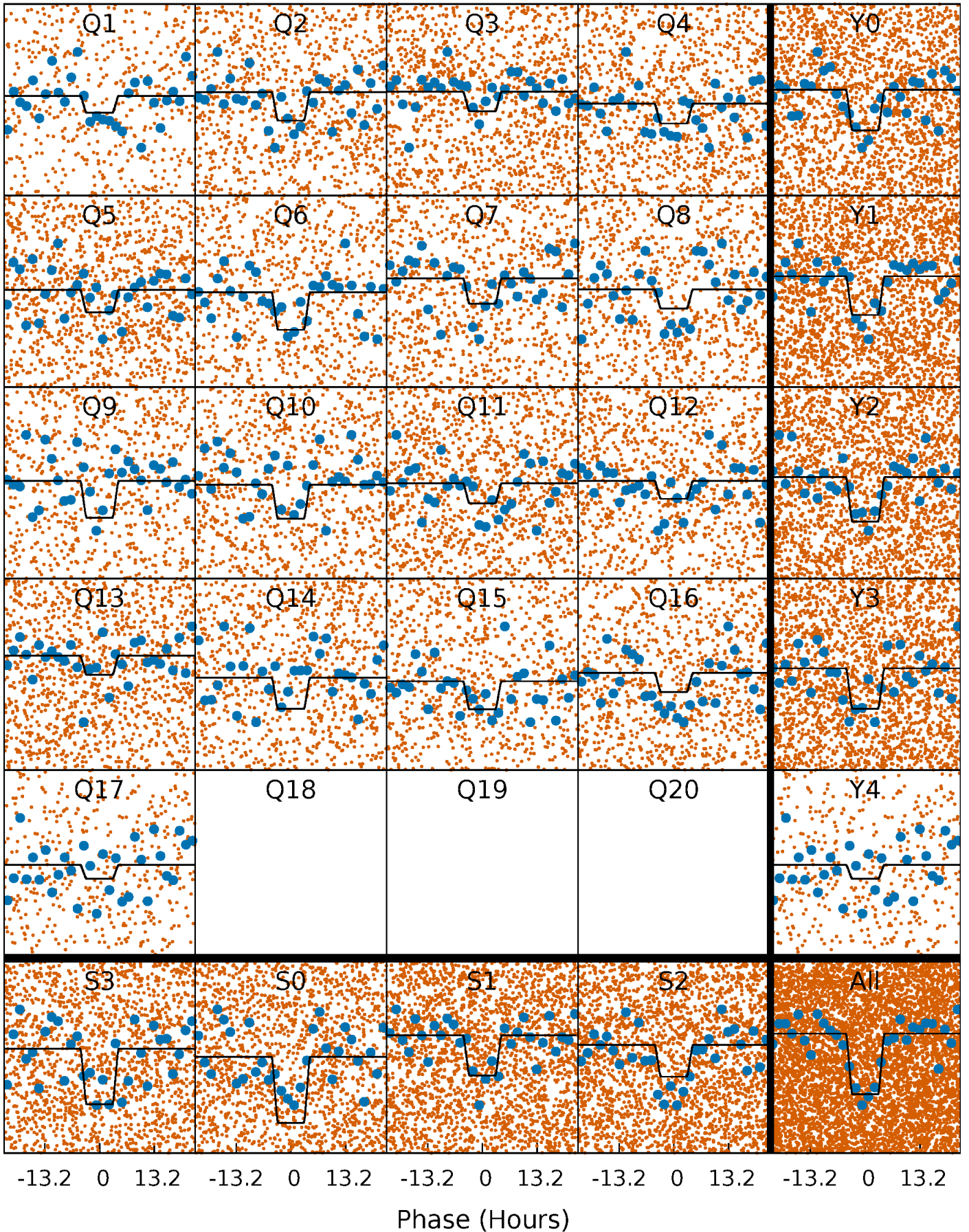
DV Quarter-Phased Transit Curves

TCE 006205566-01 P= 3.722926 Days $T_0=134.626909$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

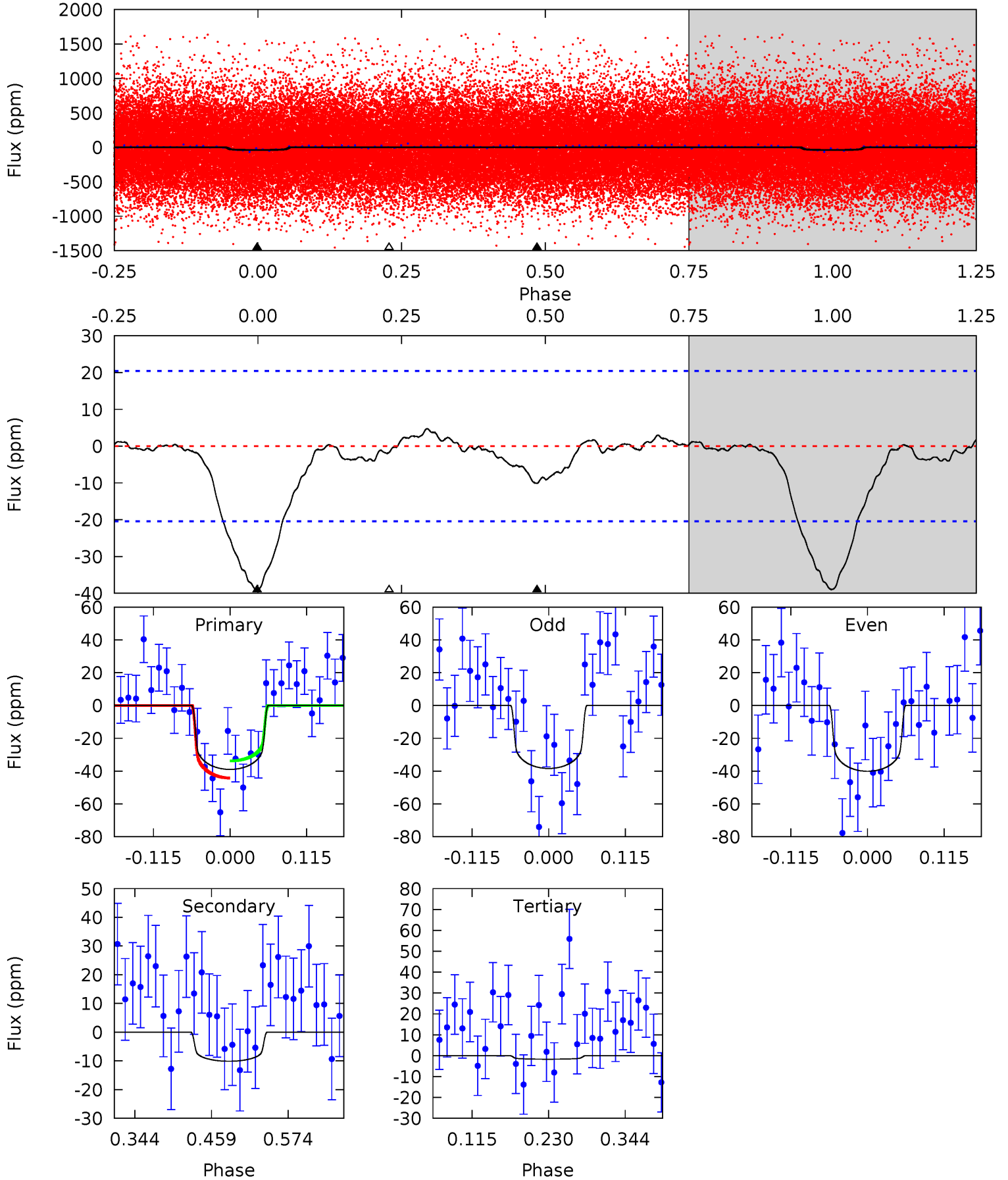
TCE 006205566-01 P= 3.723059 Days $T_0=134.584322$ (BKJD)



DV Model-Shift Uniqueness Test

006205566-01, P = 3.722926 Days, E = 130.903983 Days

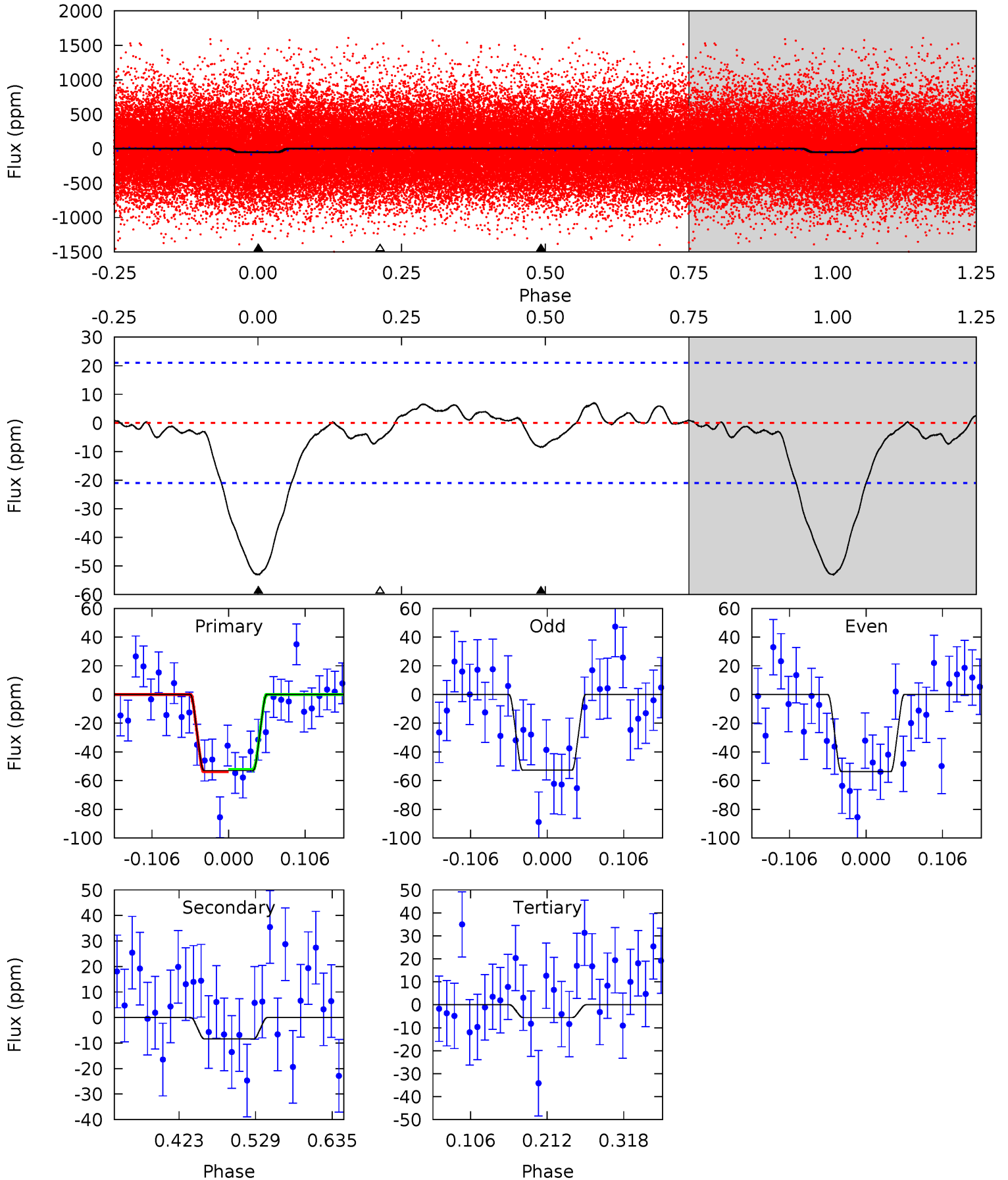
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.65	2.25	0.38	0	4.54	1.58	0.42	8.27	8.65	1.87	2.25	0.19	0.90	0.11	1.16



Alt Model-Shift Uniqueness Test

006205566-01, P = 3.723059 Days, E = 130.861263 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	1.82	1.21	0	4.55	1.62	0.75	10.3	11.5	0.62	1.82	0.11	0.92	0.12	0.17



Stellar Parameters For KIC 006205566

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6046^{+163}_{-199}	$4.509^{+0.048}_{-0.192}$	$-0.200^{+0.250}_{-0.350}$	$0.927^{+0.263}_{-0.088}$	$1.011^{+0.117}_{-0.143}$	$1.789^{+0.458}_{-0.892}$
	+3%/-3%	+1%/-4%	+125%/-175%	+28%/-9%	+12%/-14%	+26%/-50%
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 006205566-01 / KOI 7772.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 5	$0.82^{+0.25}_{-0.25}$	1681^{+120}_{-78}	4082^{+652}_{-499}	17^{+21}_{-10}
Alt.	-8 ± 5	$0.76^{+0.25}_{-0.24}$	1687^{+108}_{-82}	4064^{+718}_{-630}	16^{+22}_{-10}

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 $A_{\text{obs}} \gg 1.0$

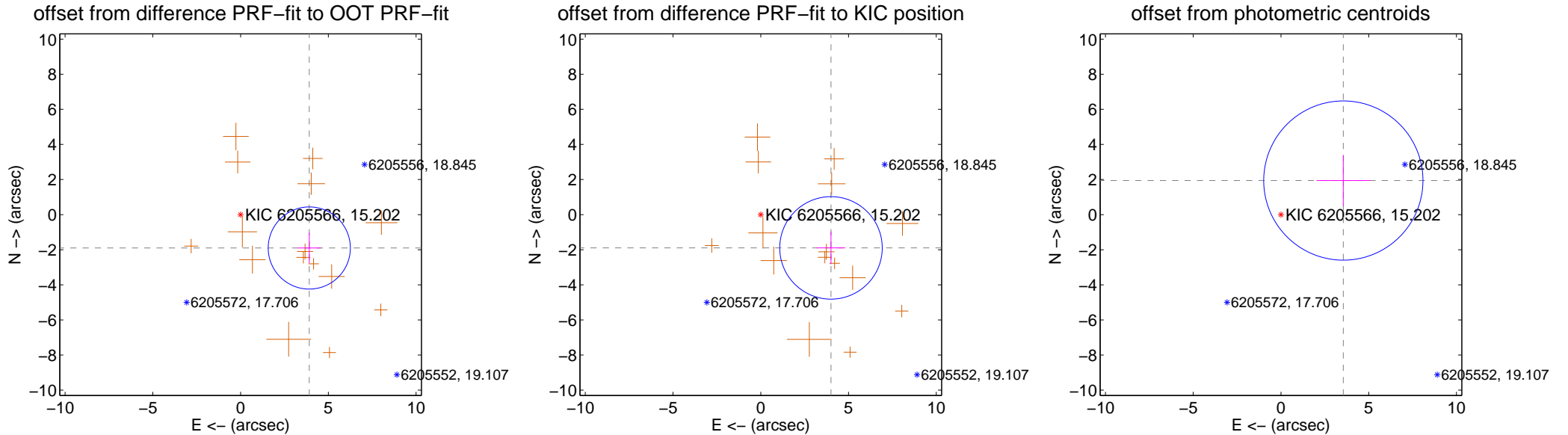
DV Centroid Data

Supplemental centroid analysis for 006205566-01. Kepler magnitude: 15.20. Transit SNR 8.45

There are 0 quarters with good PRF difference image offsets

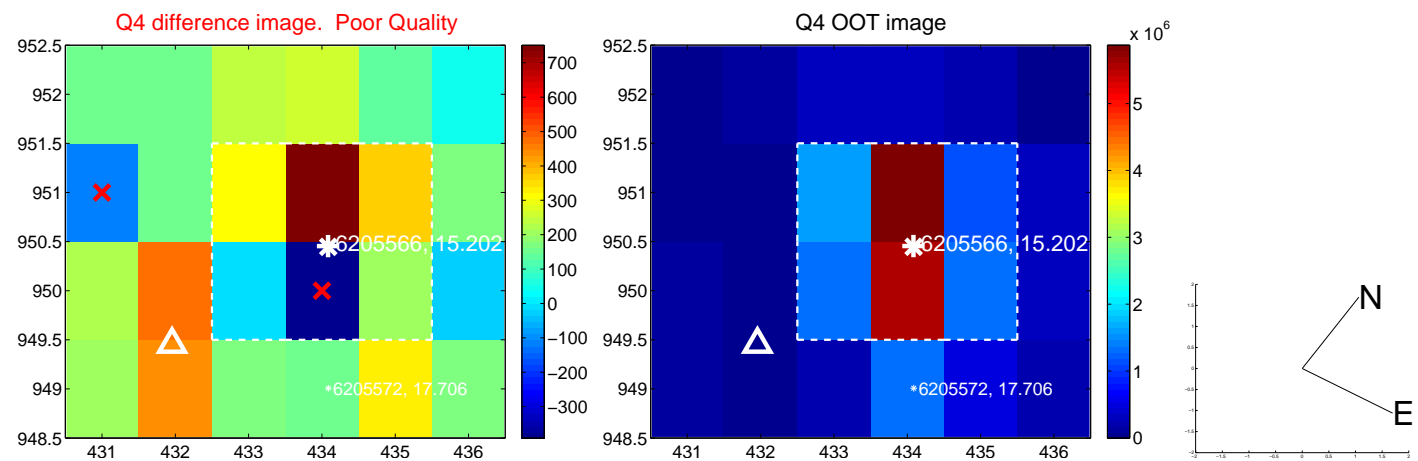
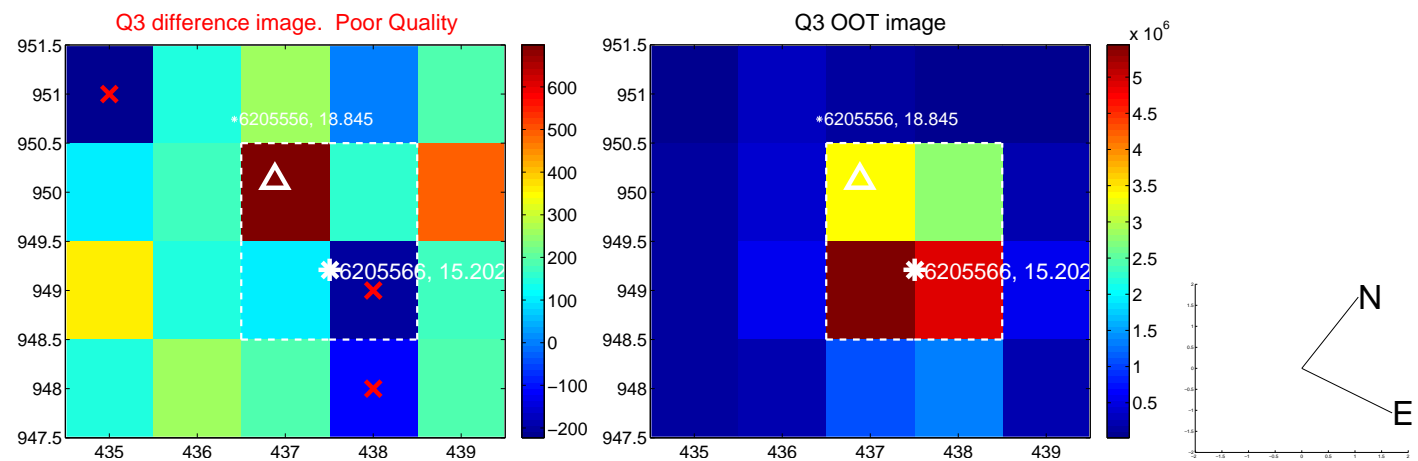
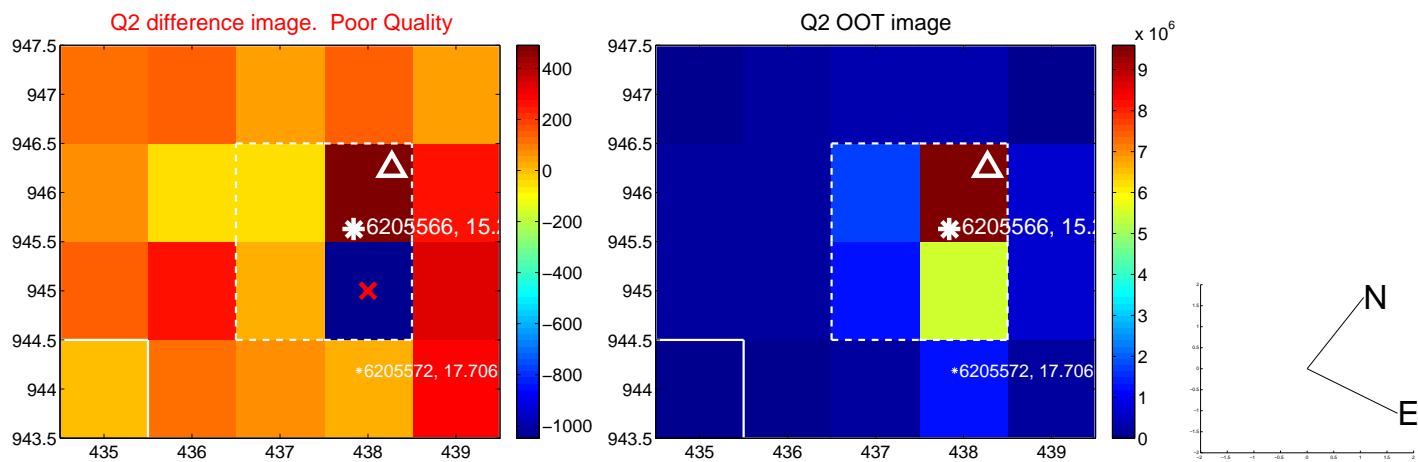
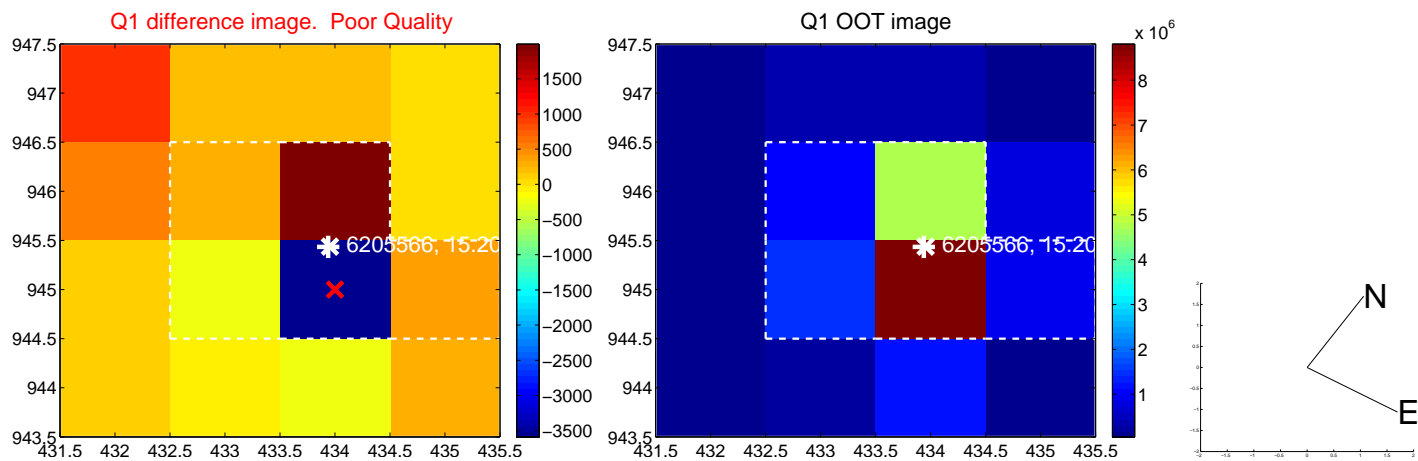
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.353 ± 0.780	5.58	-3.915 ± 0.657	-1.902 ± 0.868
PRF-fit source offset from KIC position	4.428 ± 0.974	4.55	-4.002 ± 0.813	-1.896 ± 0.933
photometric centroid source offset	4.05 ± 1.51	2.68	-3.56 ± 1.53	1.94 ± 1.45

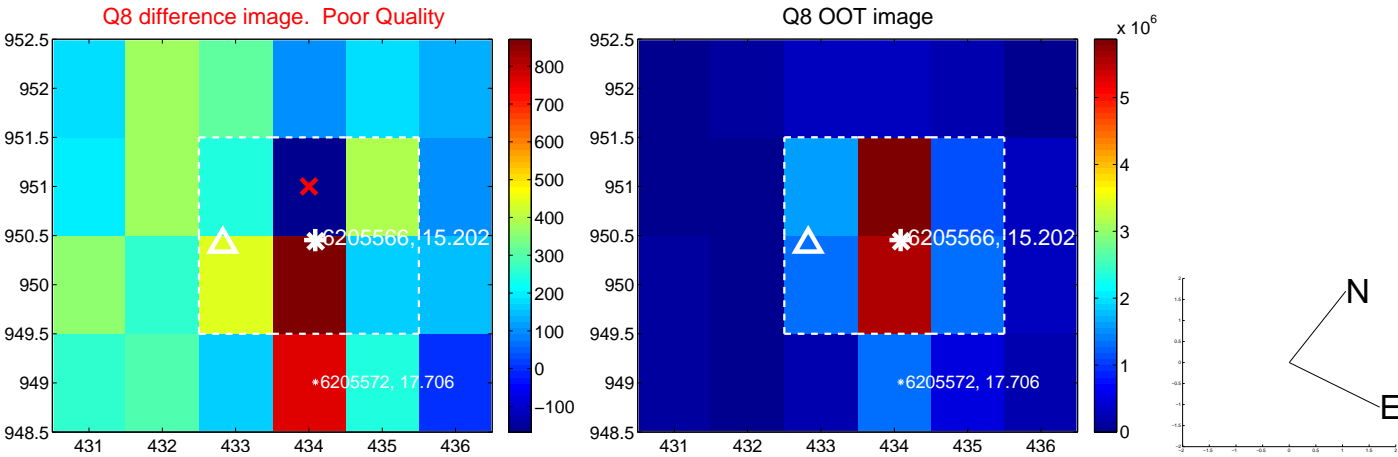
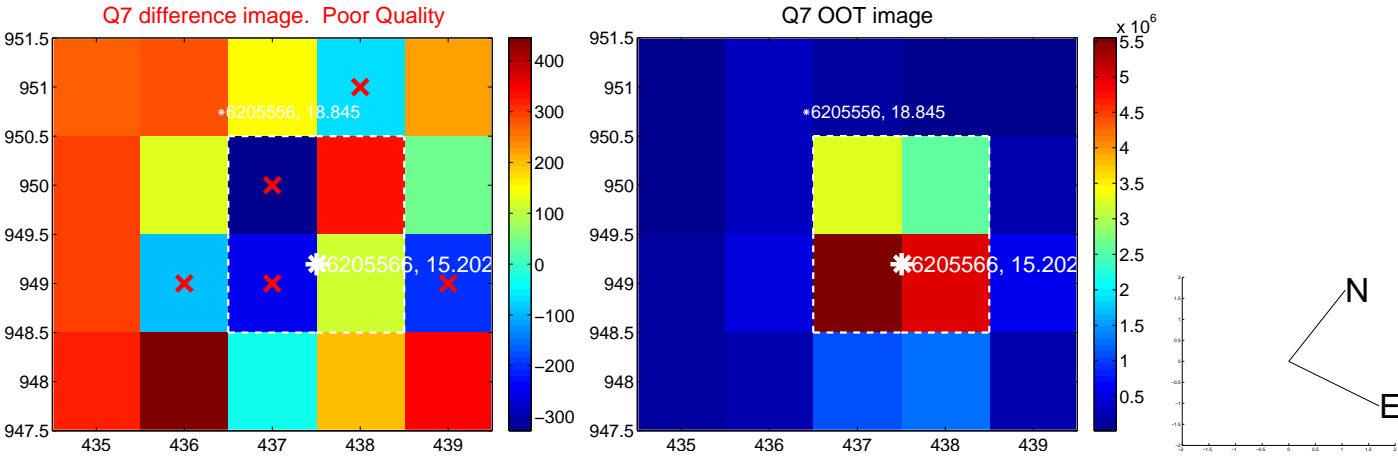
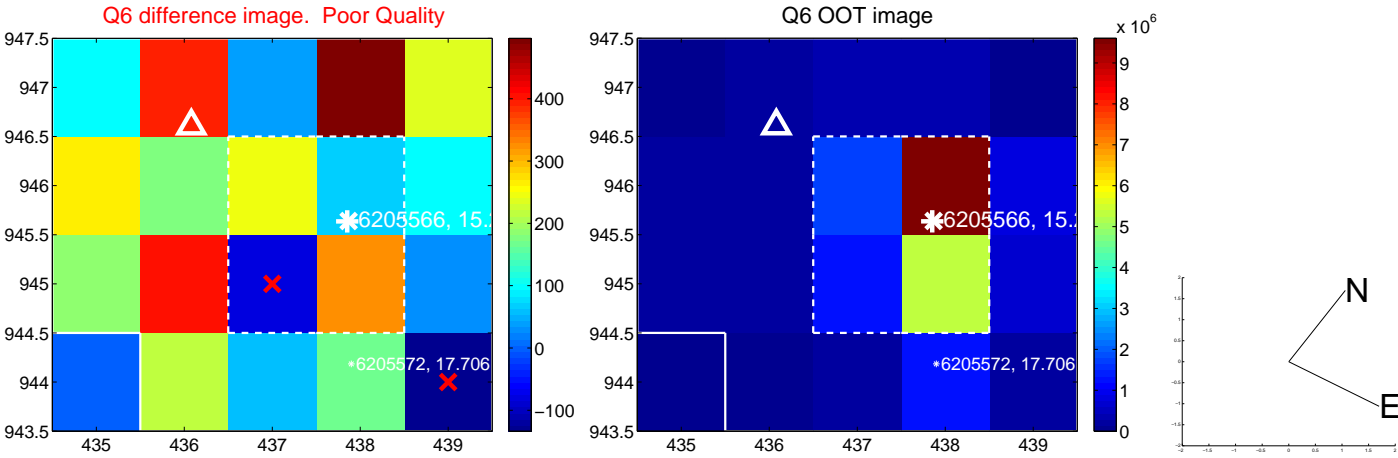
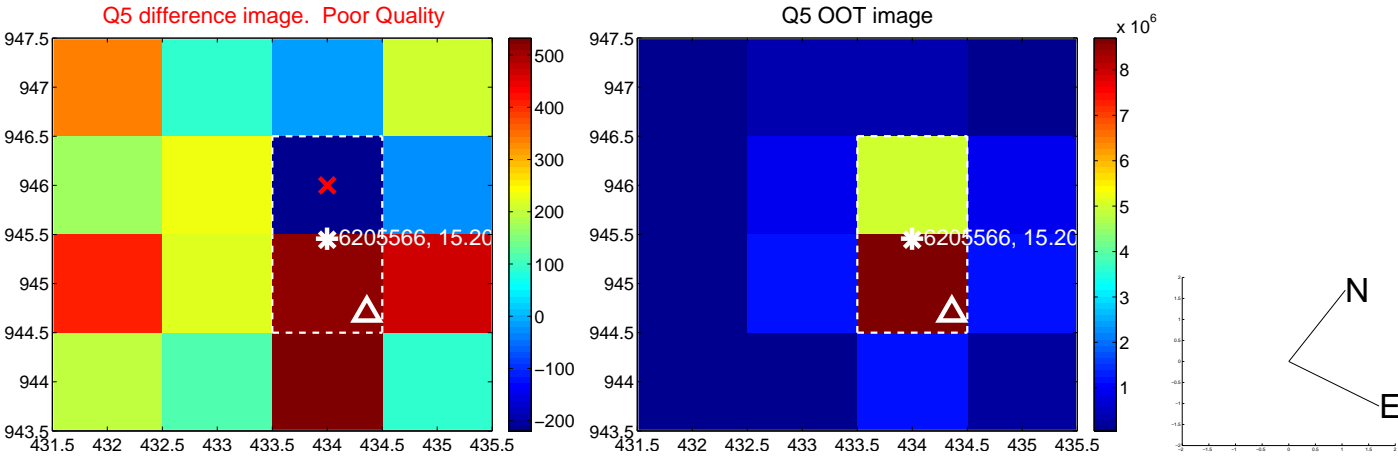


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

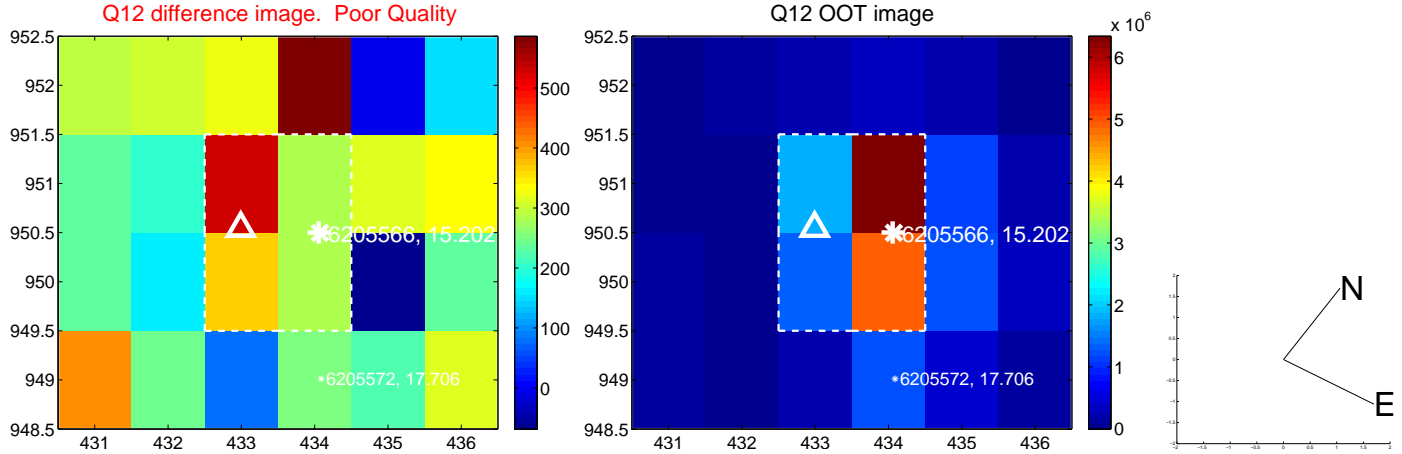
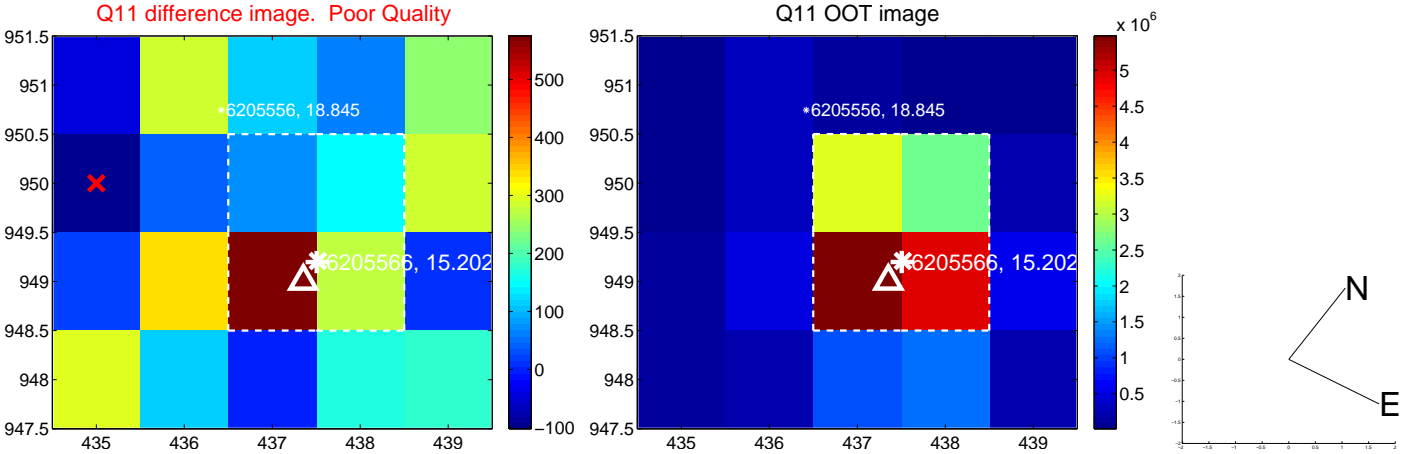
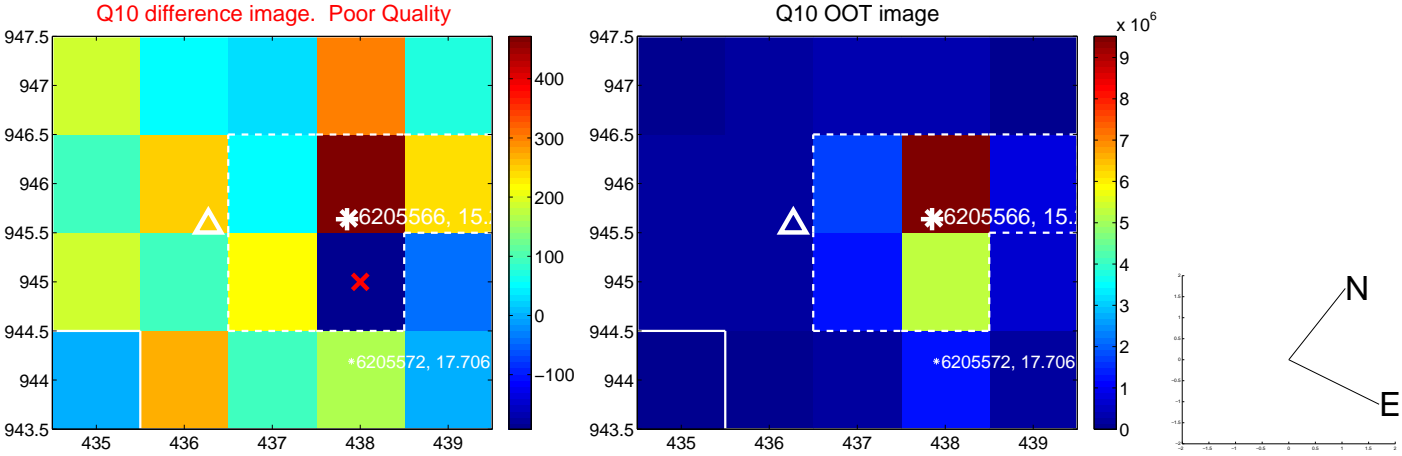
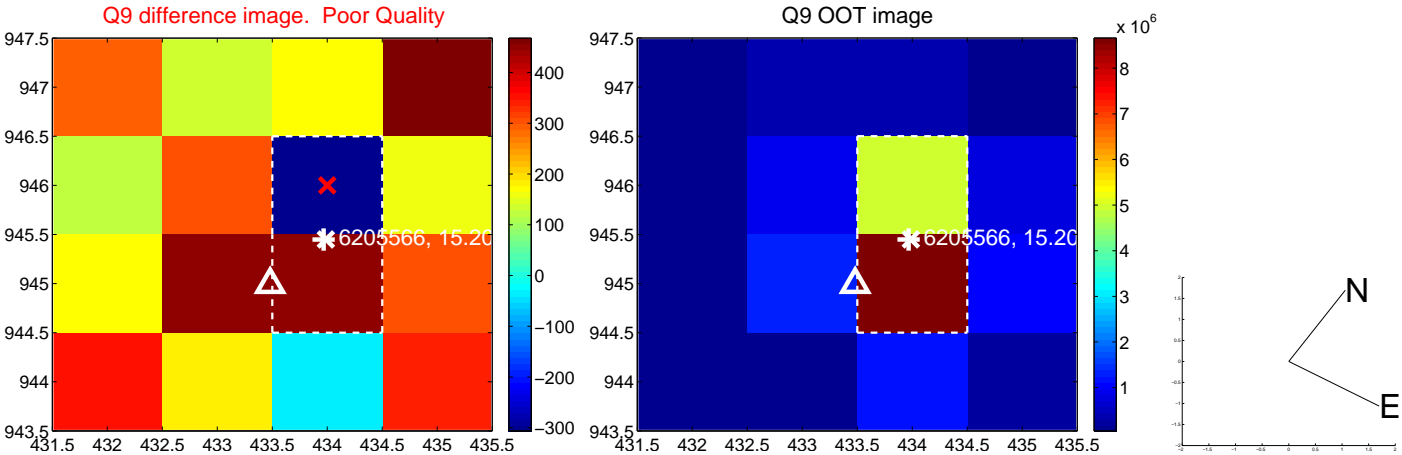
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



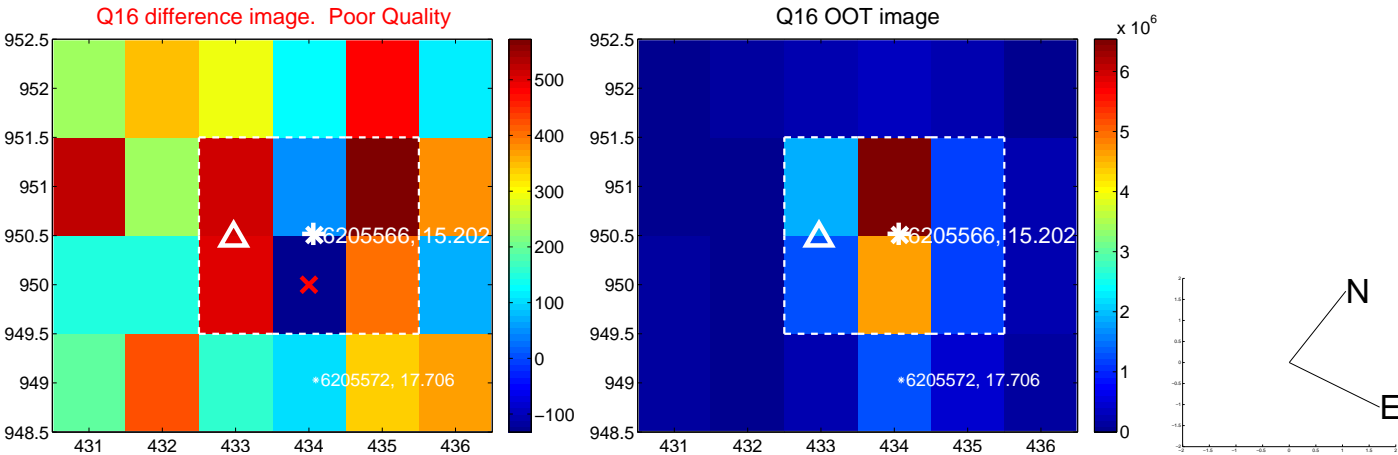
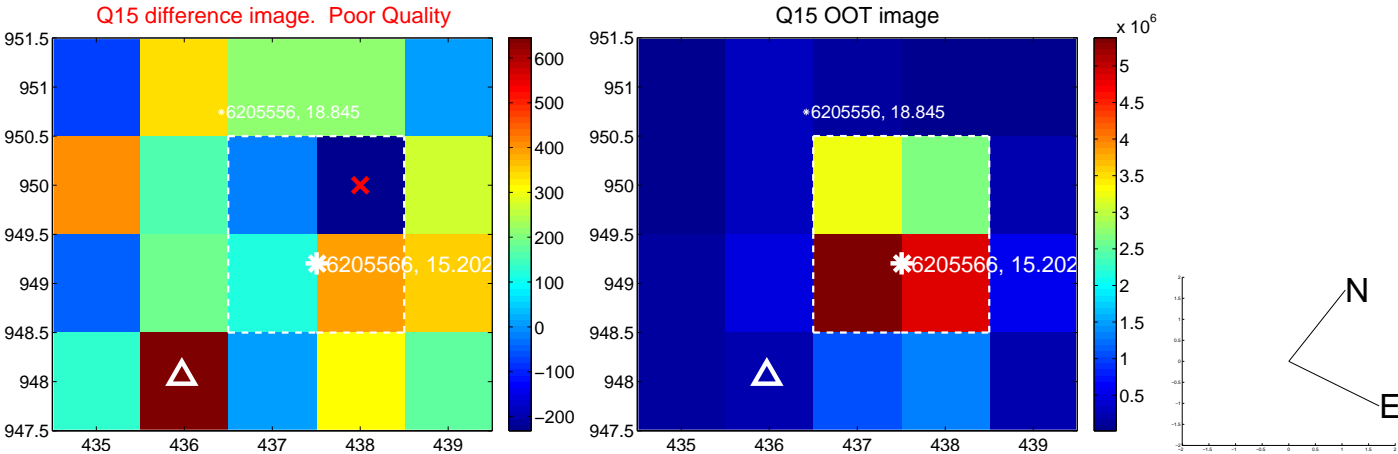
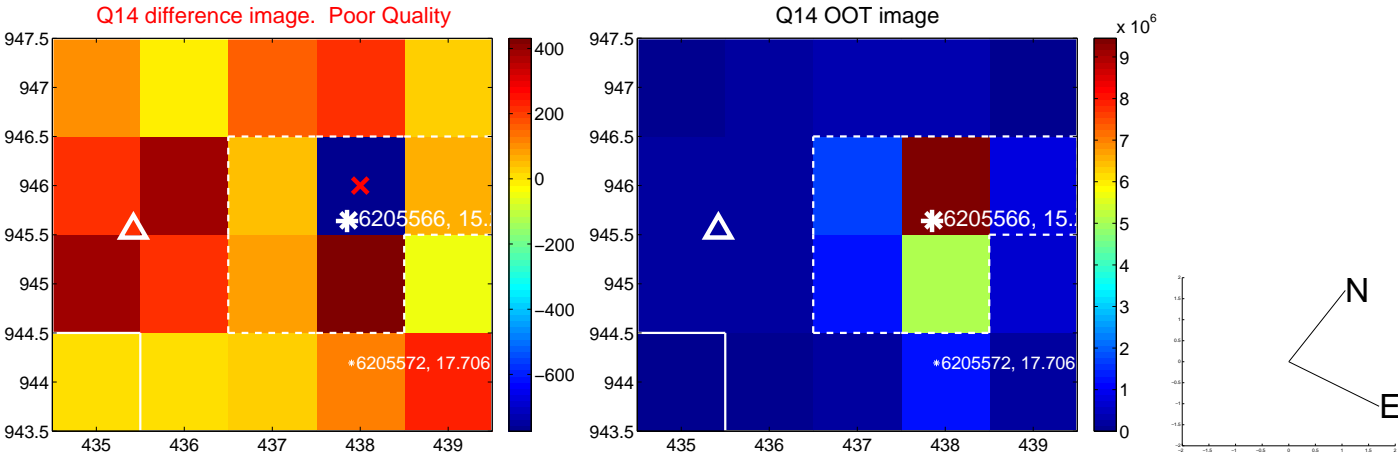
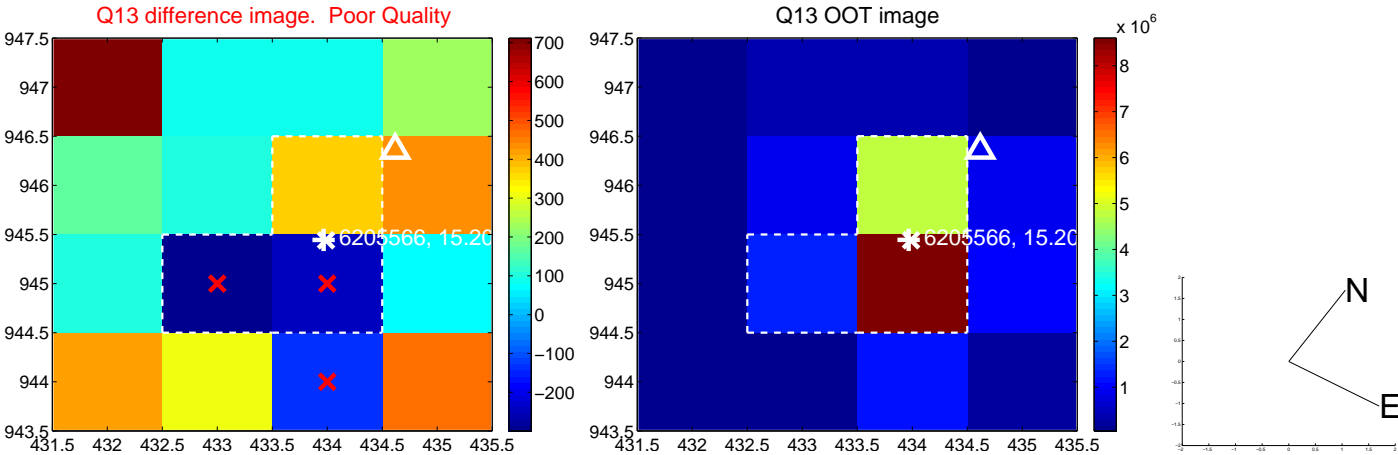
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



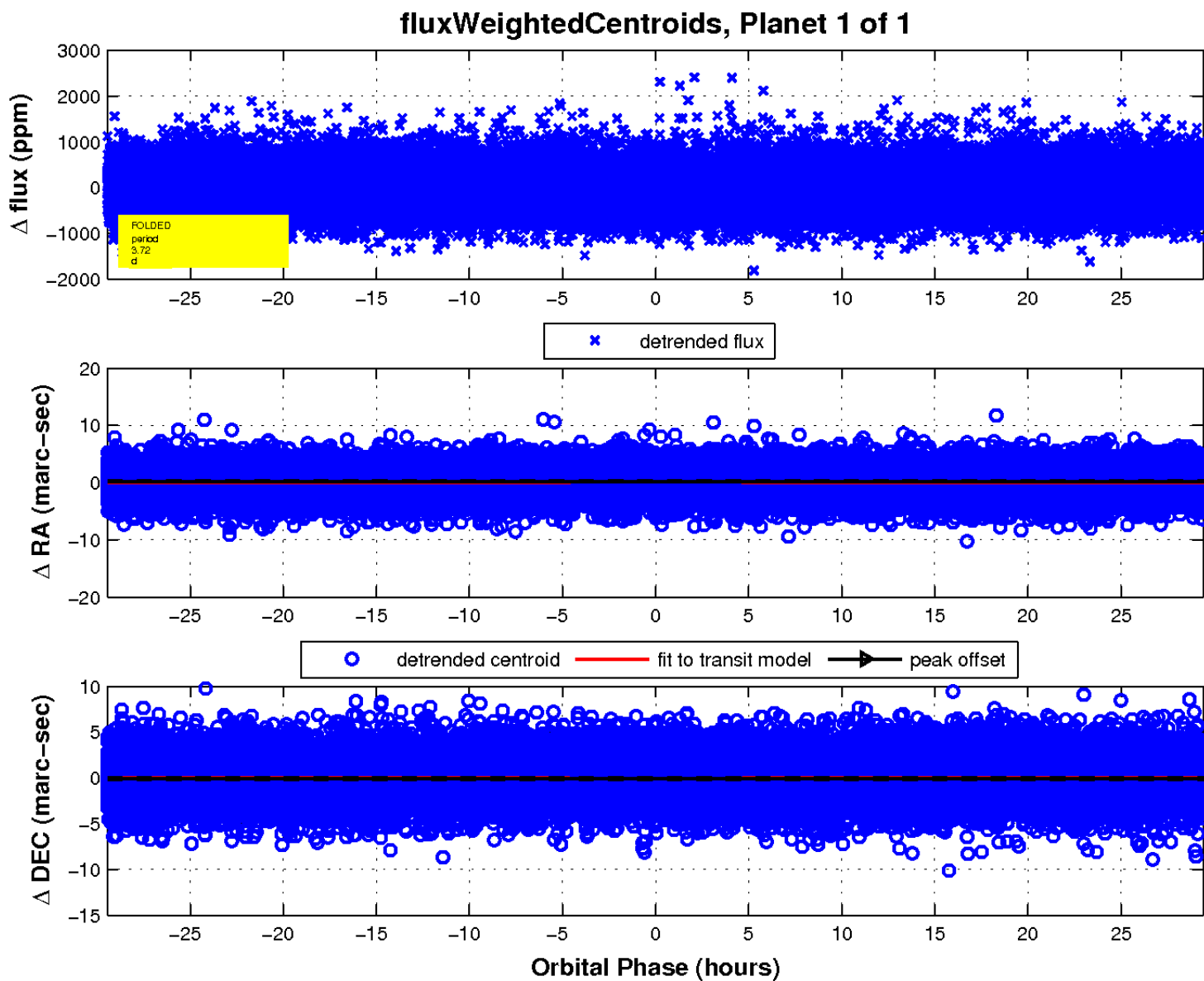
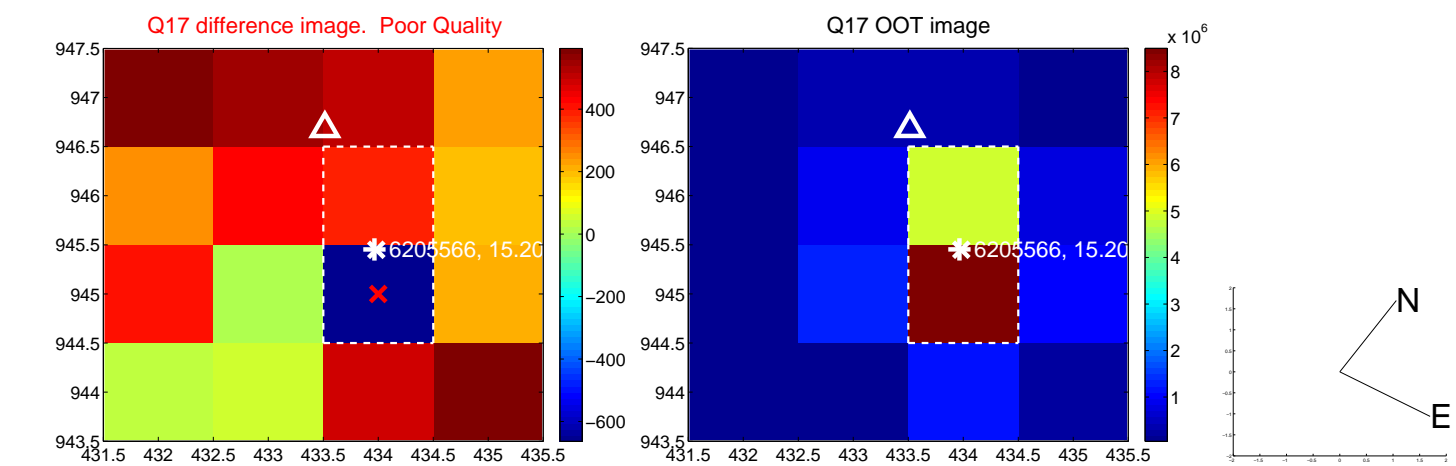
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

