

KIC 006593150

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})
006593150-01	OBS	3037.01	5.465418	133.591139	218.8	3.899	13.3	13.7	0.83	5612	1.64	174.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006593150-01	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 006593150-01

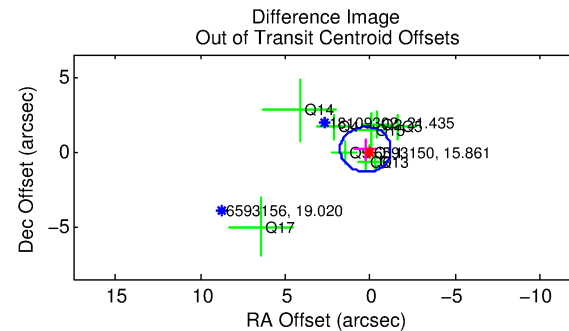
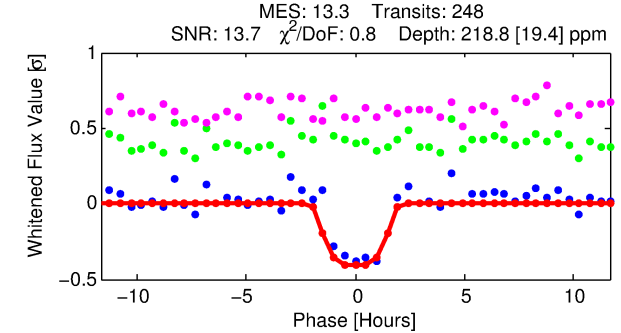
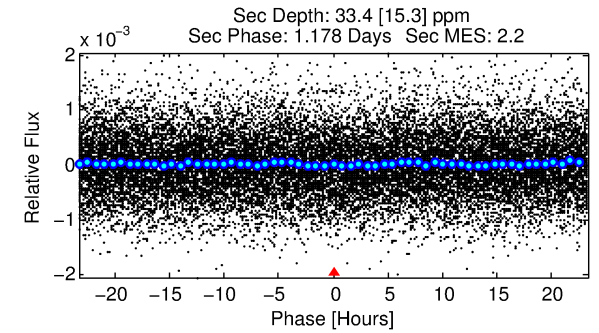
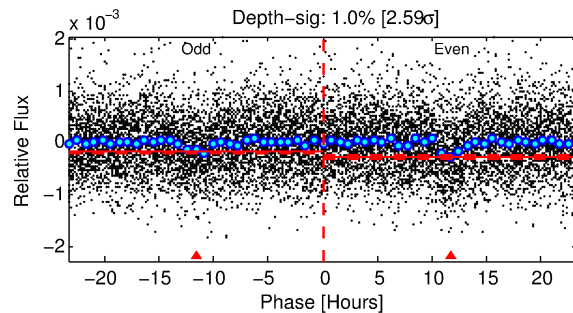
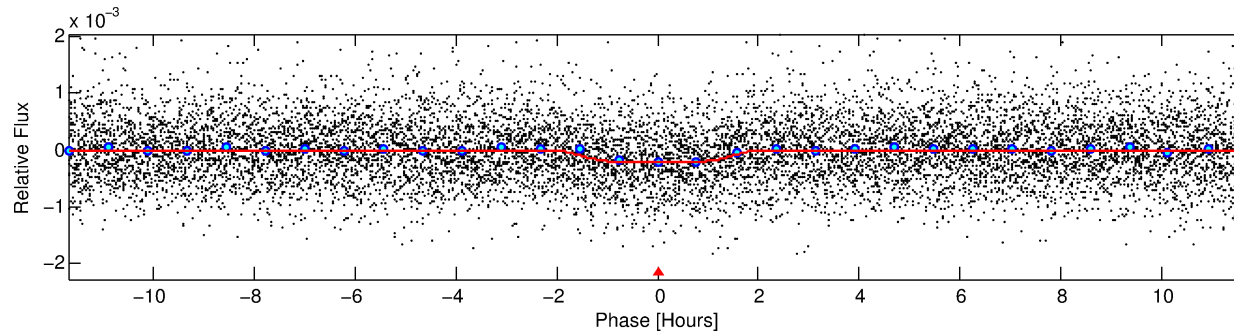
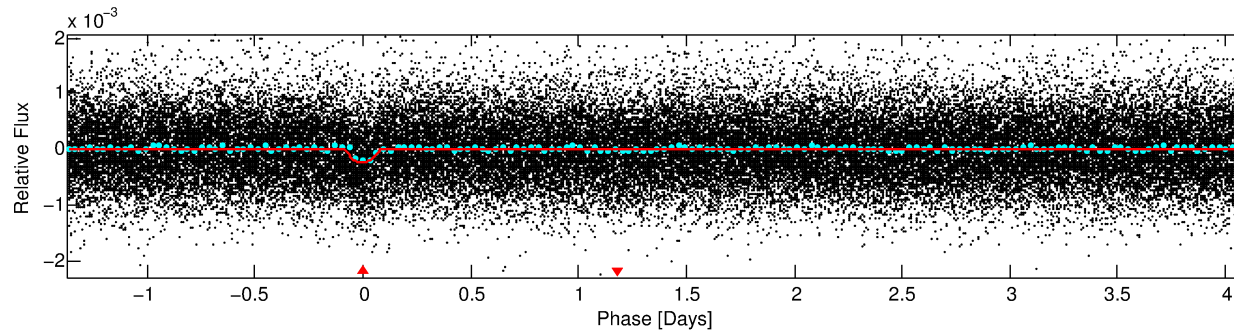
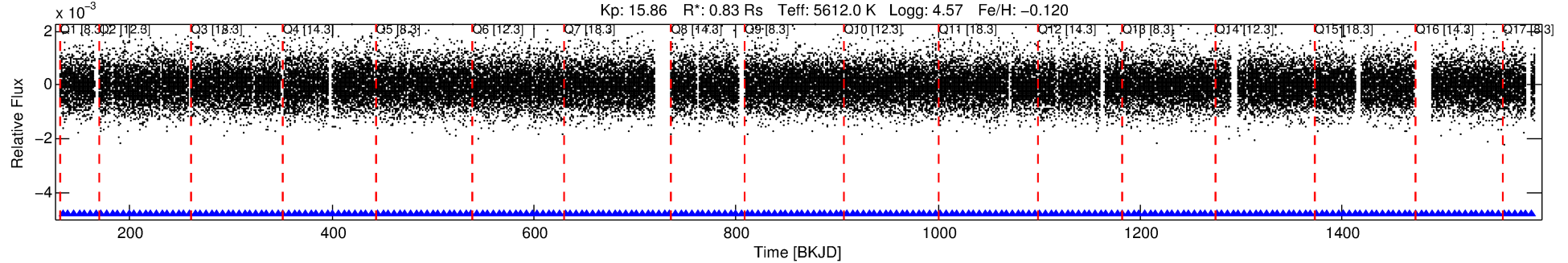
No Significant Match Found

DV One-Page Summary

KIC: 6593150 Candidate: 1 of 1 Period: 5.465 d

KOI: K03037.01 Corr: 0.914

Kp: 15.86 R*: 0.83 Rs Teff: 5612.0 K Logg: 4.57 Fe/H: -0.120



DV Fit Results:

Period = 5.46542 [0.00004] d
Epoch = 133.5911 [0.0064] BKJD
Rp/R* = 0.0181 [0.0015]
a/R* = 3.48 [0.93]
b = 0.97 [0.02]
Seff = 174.68 [58.02]
Teq = 927 [77] K
Rp = 1.64 [0.43] Re
a = 0.0591 [0.0125] AU
Ag = 23.96 [13.79] [1.66σ]
Teffp = 3171 [396] K [5.56σ]

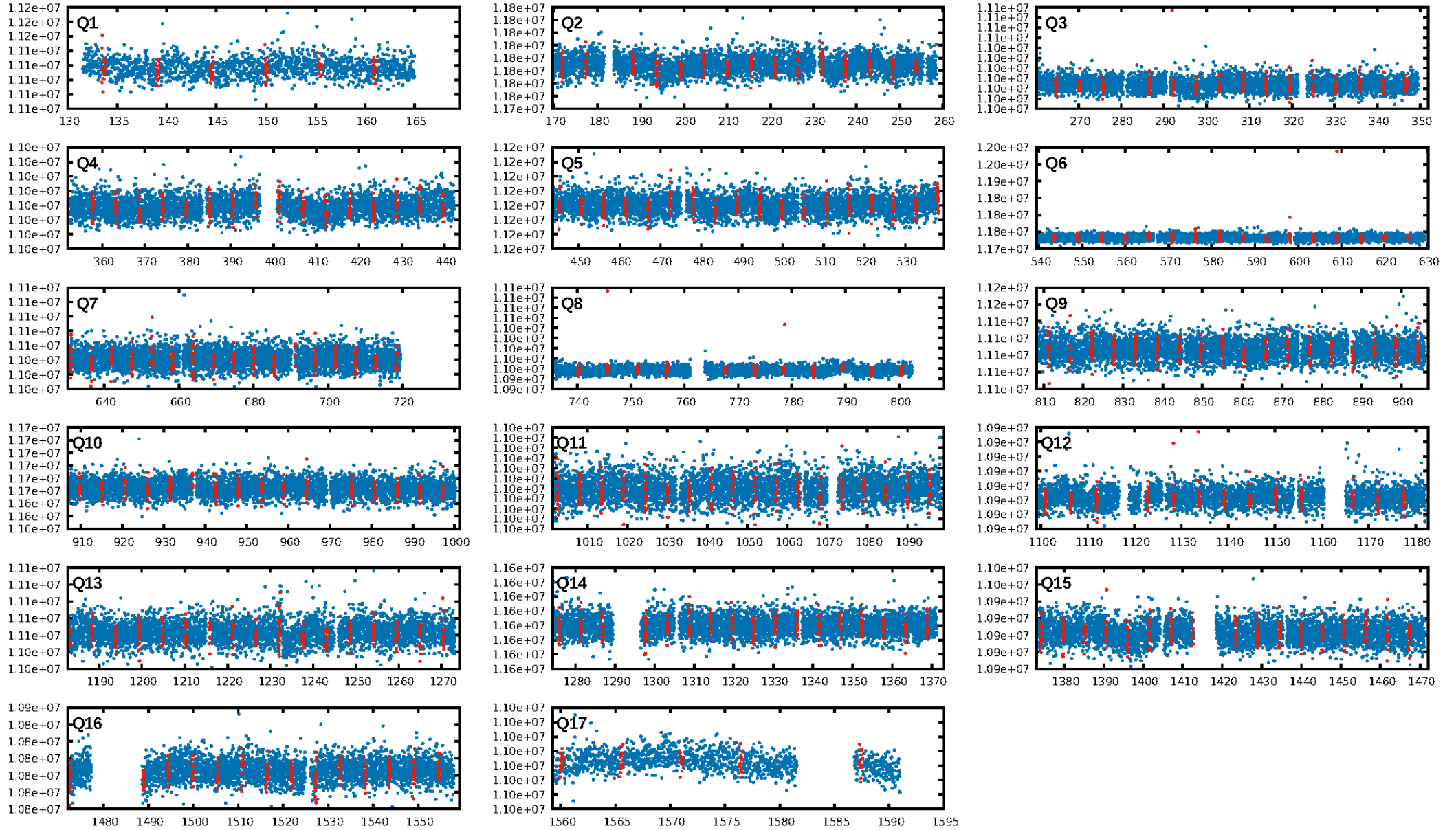
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.80e-39
RollingBand-fgt: 1.00 [237/237]
GhostDiagnostic-chr: 4.011
Centroid-sig: 48.7%
Centroid-so: 0.779 arcsec [0.71σ]
OotOffset-rm: 0.299 arcsec [0.60σ]
KicOffset-rm: 0.305 arcsec [0.65σ]
OotOffset-st: 3/2/1/4 [10]
KicOffset-st: 3/2/1/4 [10]
DiffImageQuality-fgm: 0.60 [6/10]
DiffImageOverlap-fno: 1.00 [17/17]

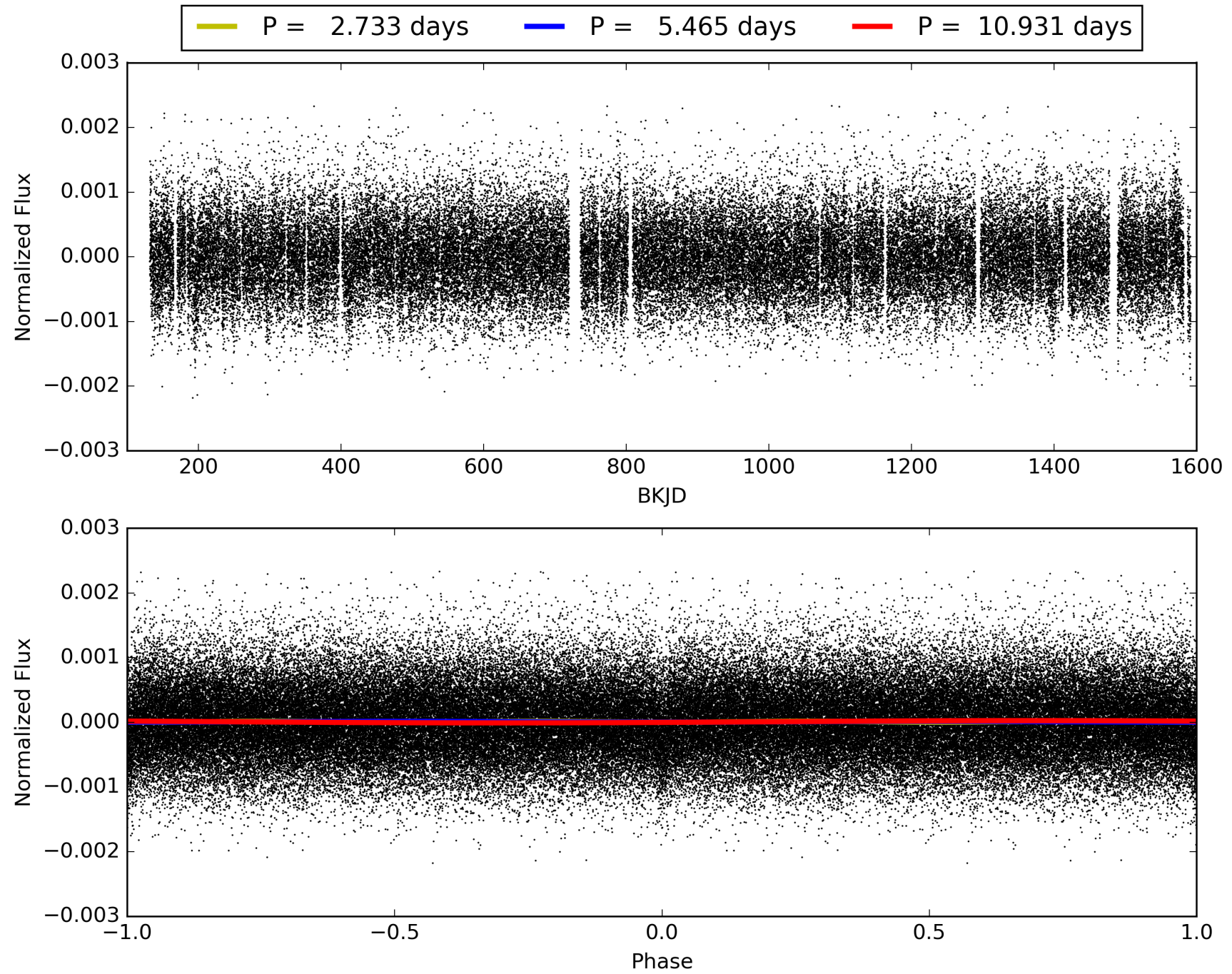
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:08:40 Z

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

TCE 006593150-01, PDC Light Curves

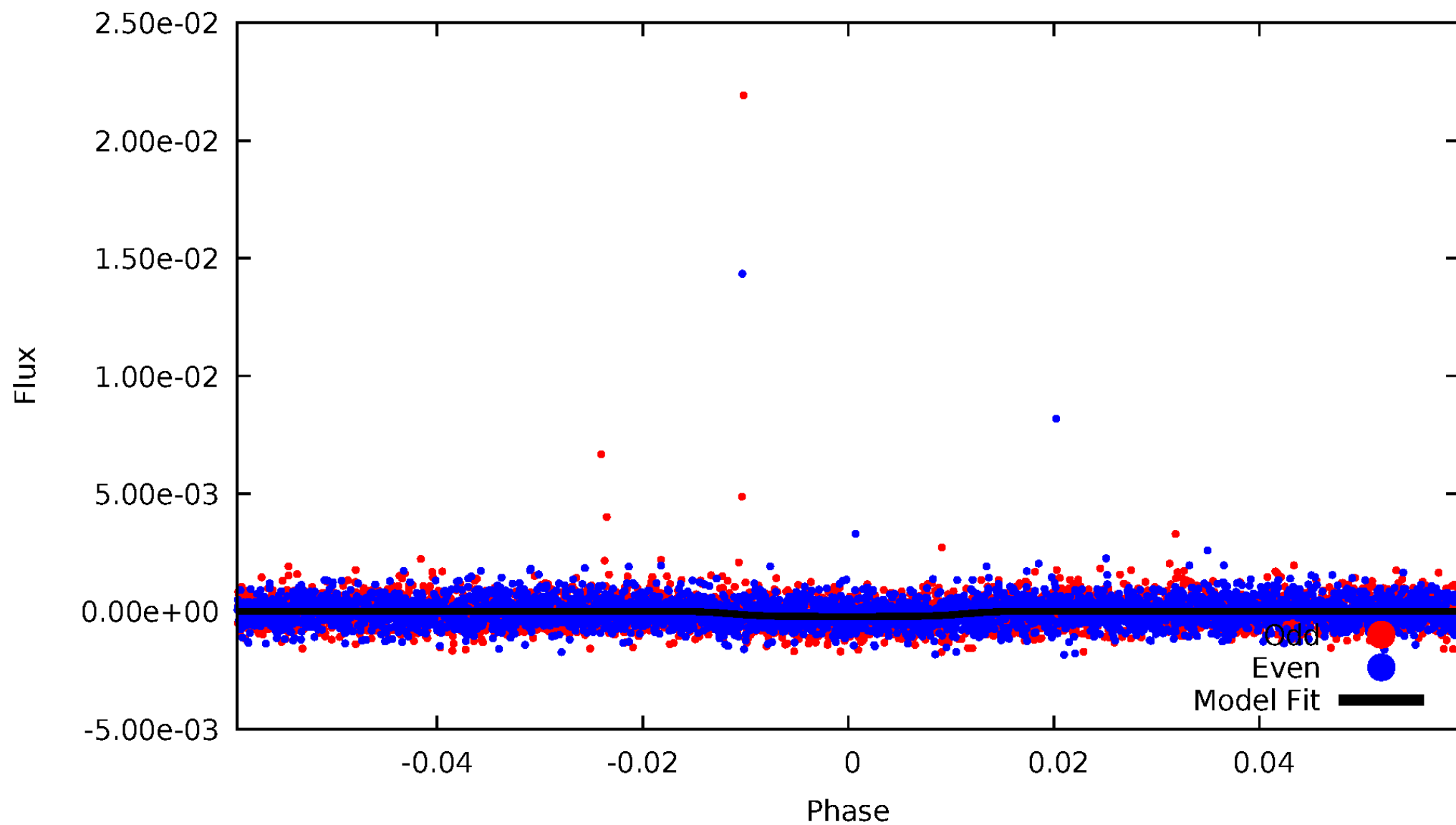


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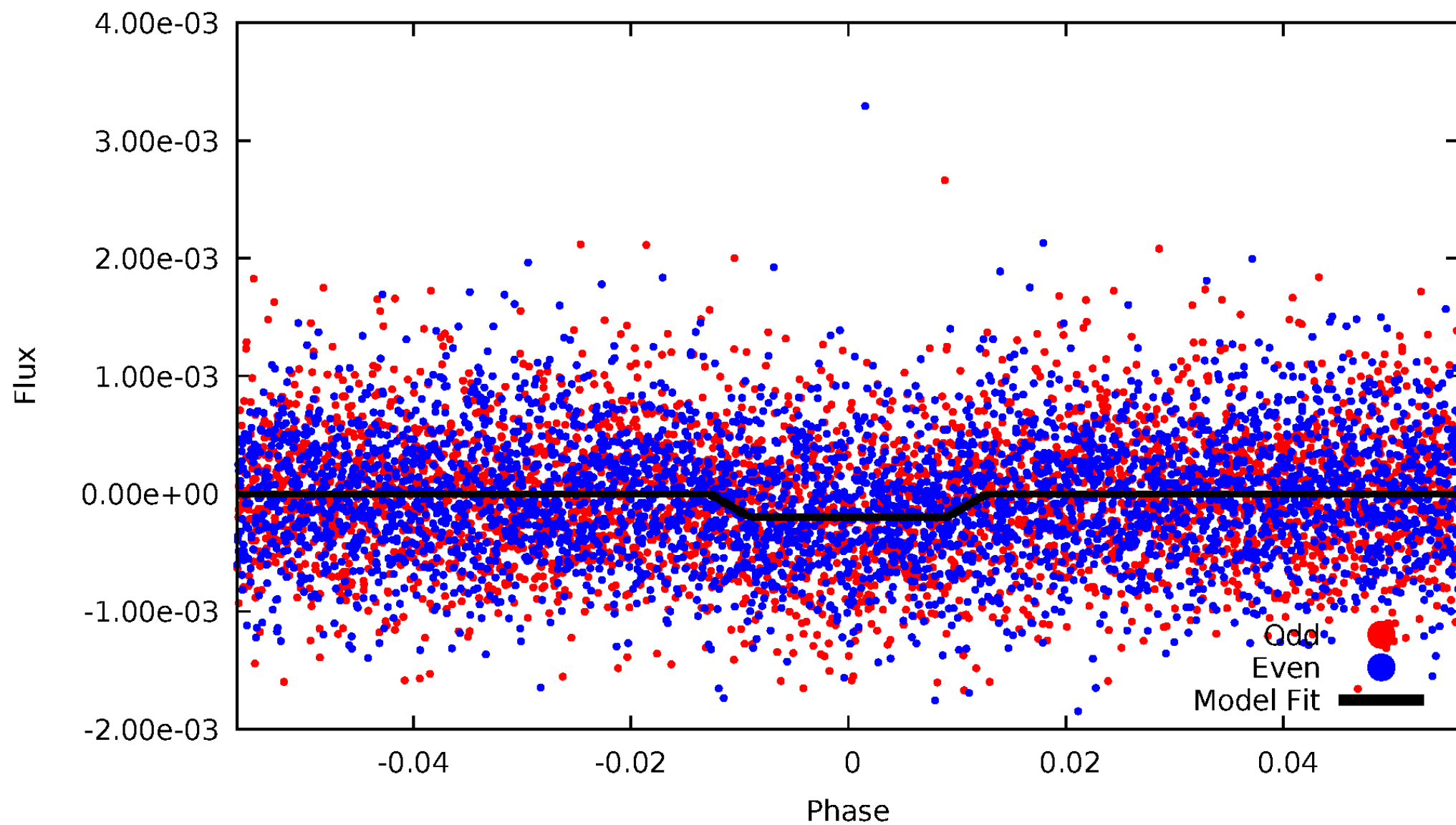
DV Odd/Even

TCE 006593150-01

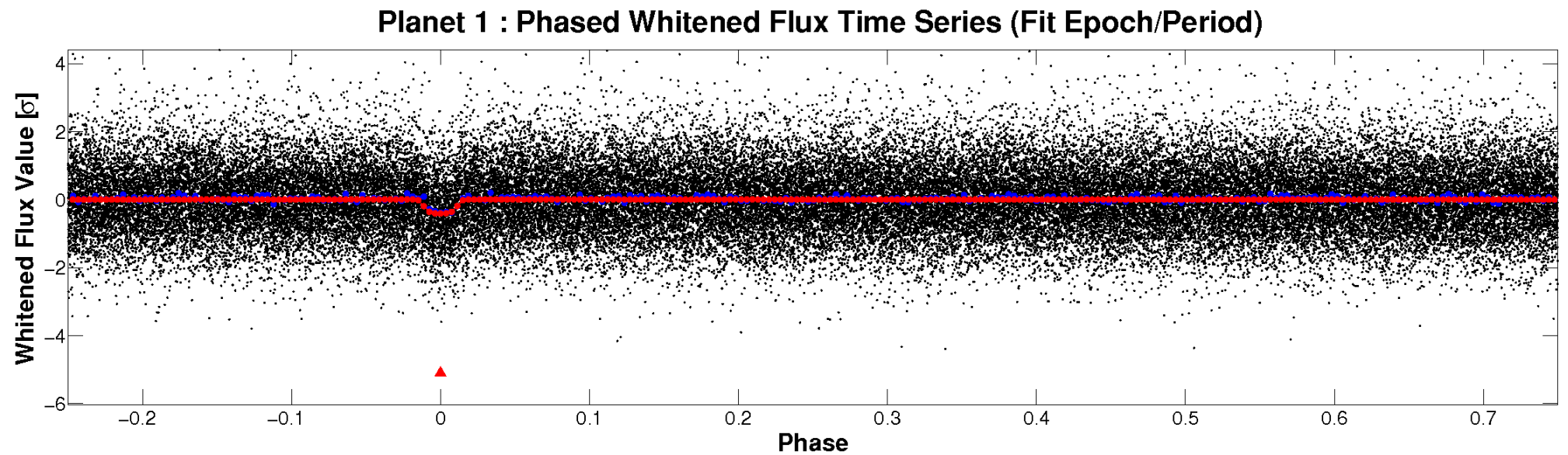
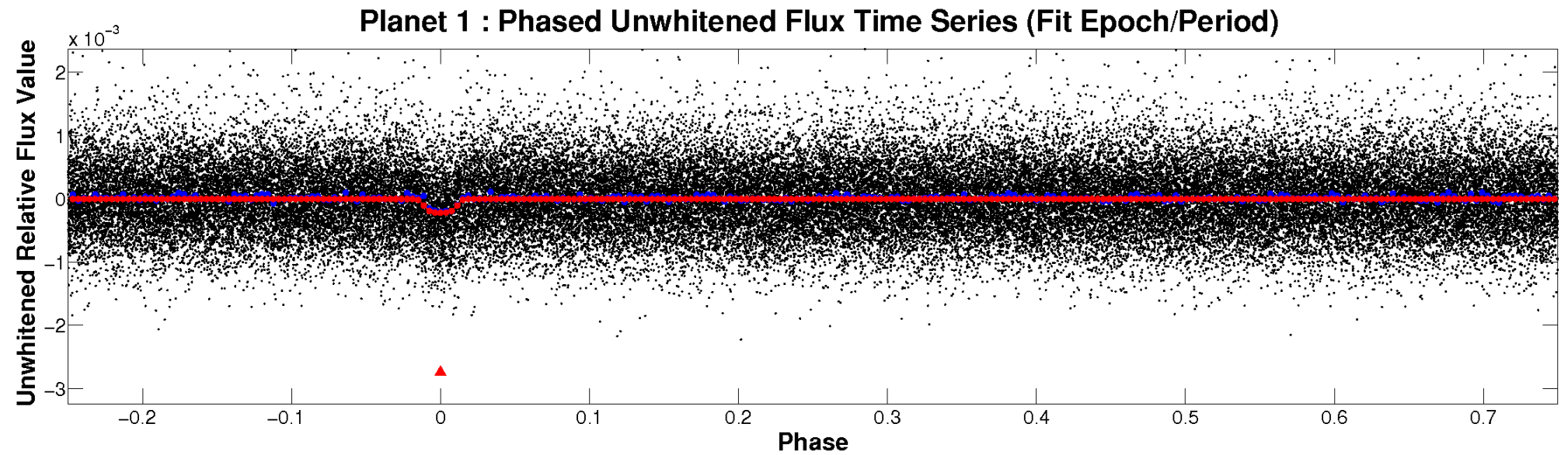


ALT Odd/Even

TCE 006593150-01

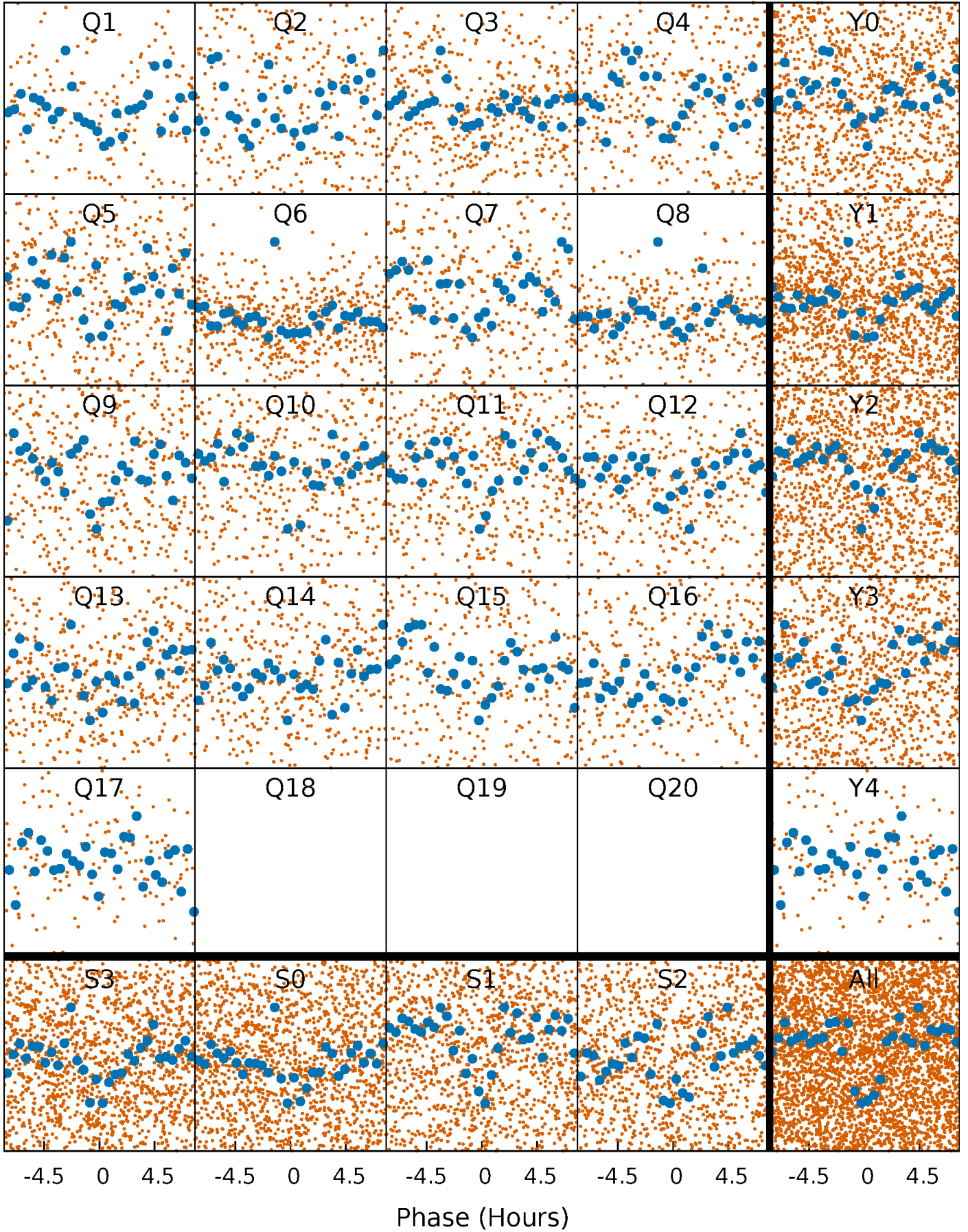


Non-Whitened Vs. Whitened Light Curve



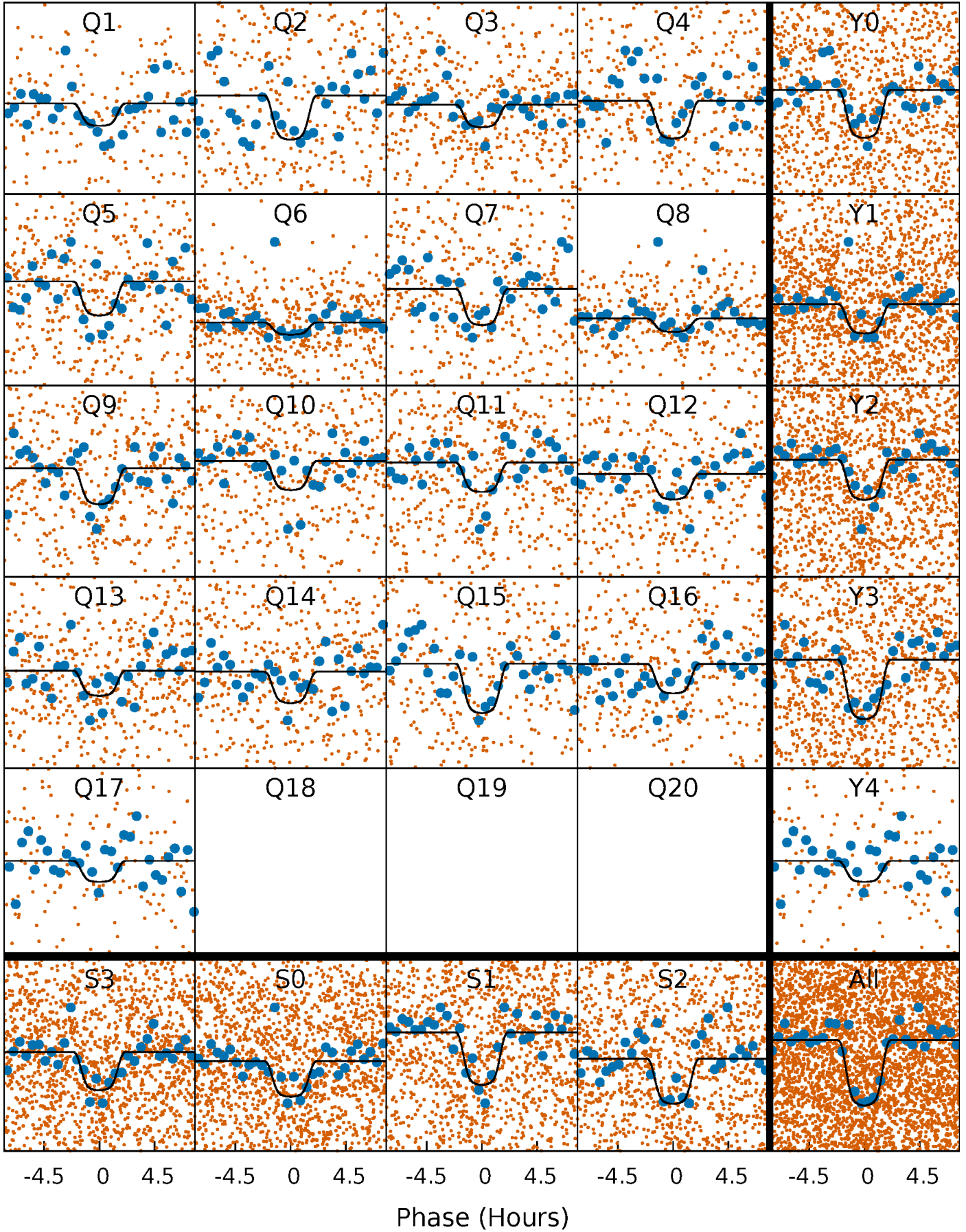
PDC Quarter-Phased Transit Curves

TCE 006593150-01 P= 5.465418 Days $T_0=133.591139$ (BKJD)



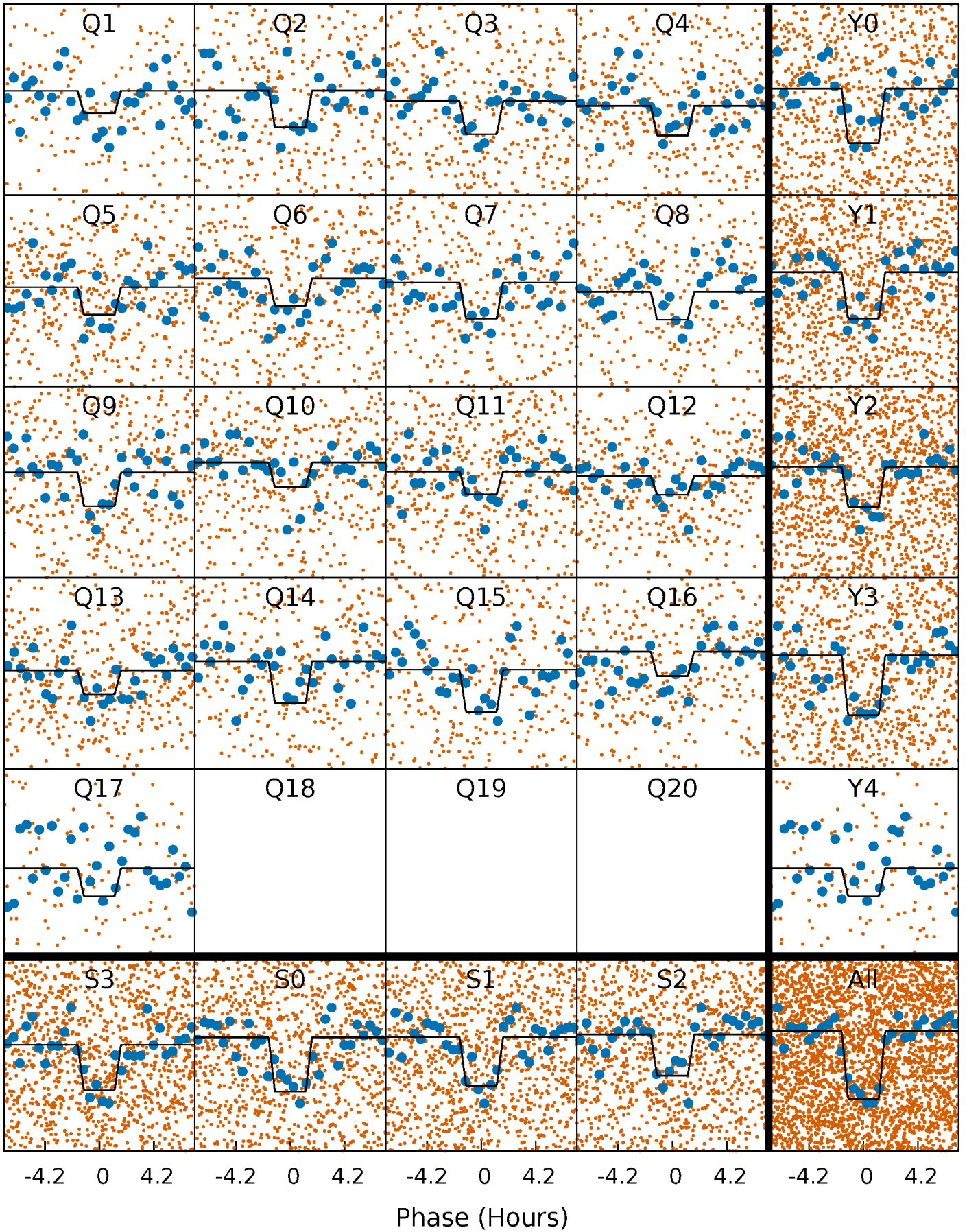
DV Quarter-Phased Transit Curves

TCE 006593150-01 P= 5.465418 Days $T_0=133.591139$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

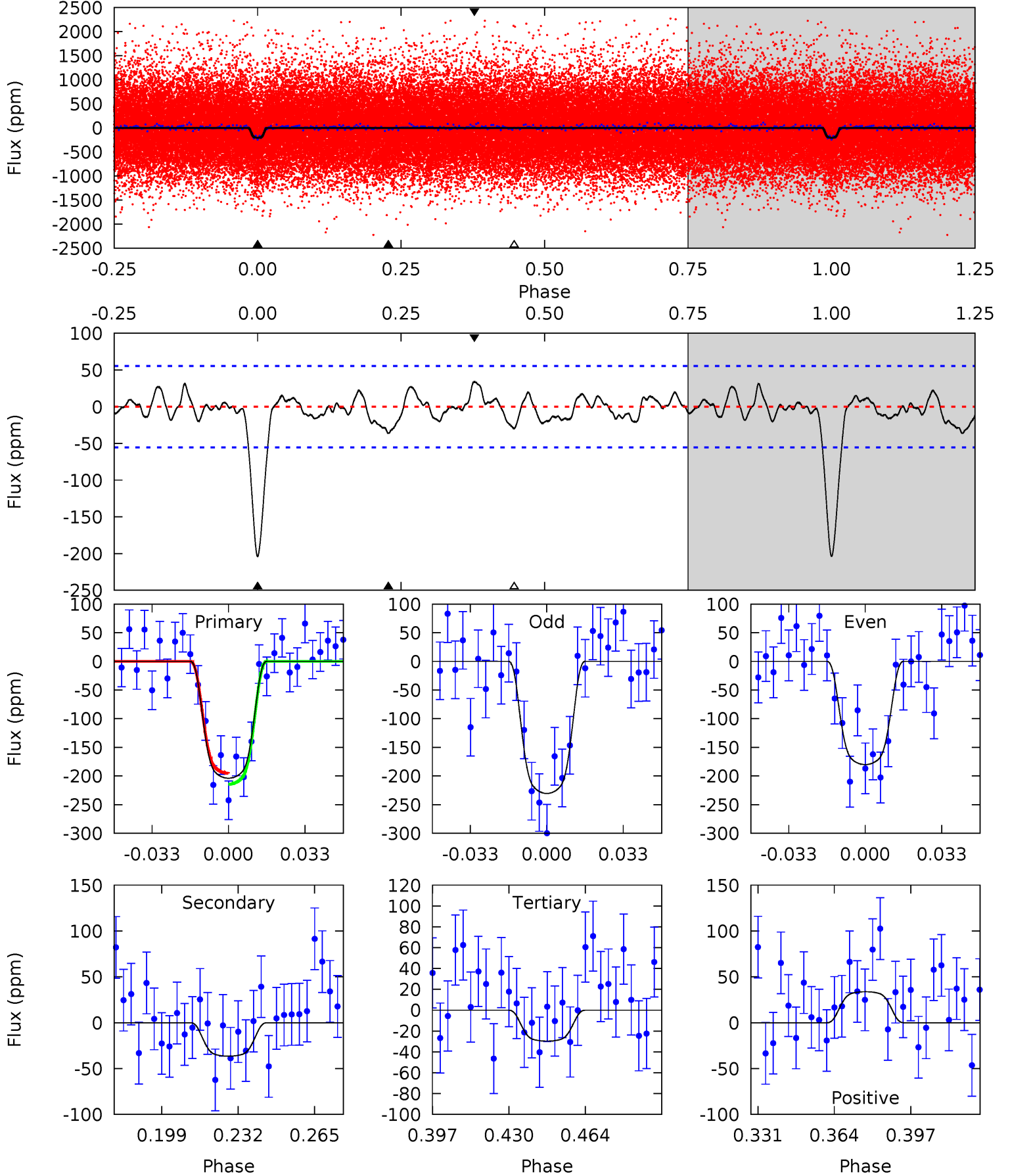
TCE 006593150-01 P= 5.465353 Days $T_0=133.598351$ (BKJD)



DV Model-Shift Uniqueness Test

006593150-01, P = 5.465418 Days, E = 128.125721 Days

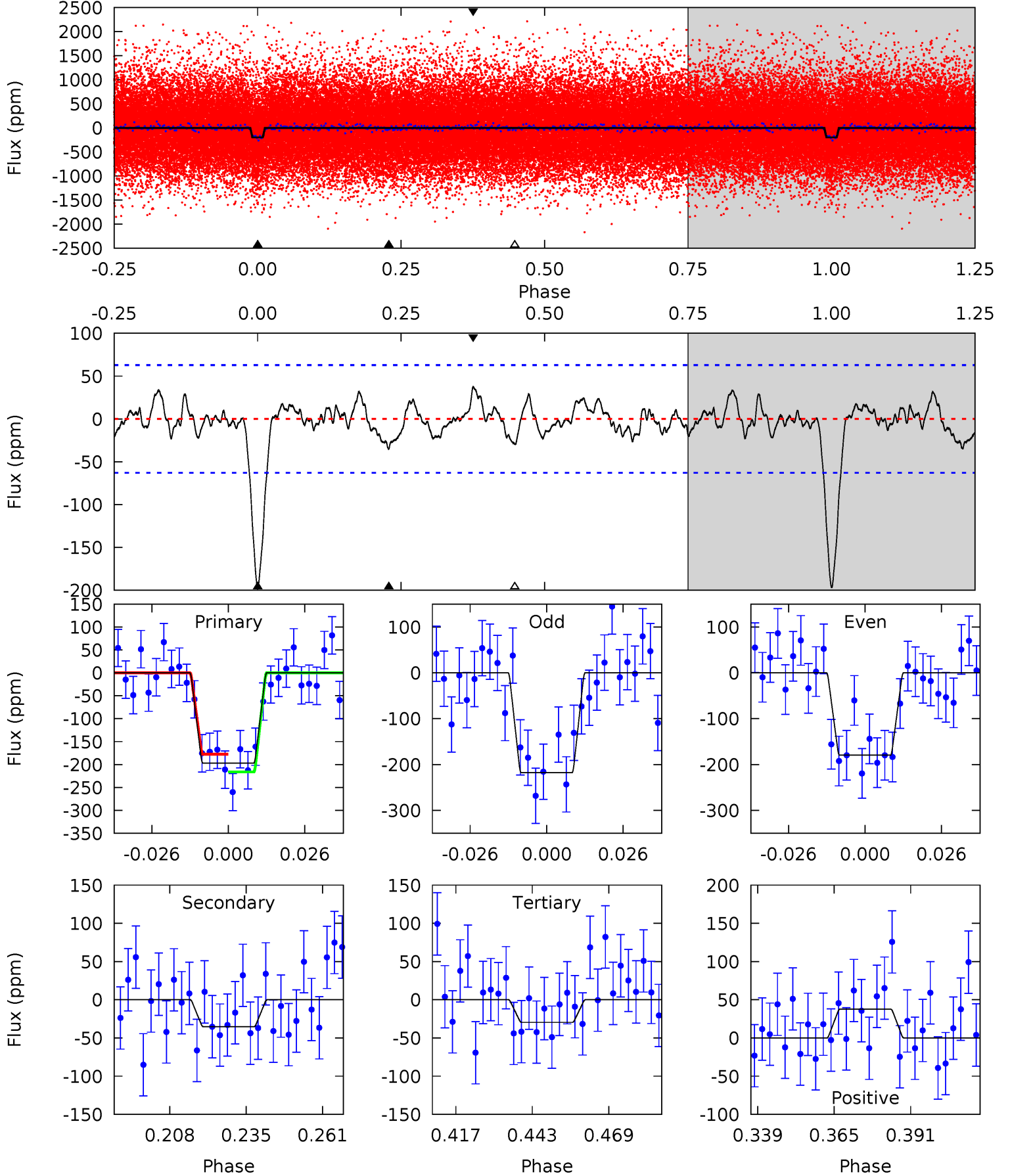
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	3.15	2.56	2.91	4.79	2.13	1.11	15.0	14.7	0.59	0.24	2.18	0.87	0.14	0.83



Alt Model-Shift Uniqueness Test

006593150-01, P = 5.465353 Days, E = 128.132998 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	2.70	2.28	2.89	4.84	2.23	1.01	12.9	12.3	0.42	-0.19	1.46	1.03	0.16	1.49



Stellar Parameters For KIC 006593150

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5612^{+169}_{-169}	$4.566^{+0.030}_{-0.170}$	$-0.120^{+0.300}_{-0.300}$	$0.829^{+0.207}_{-0.069}$	$0.926^{+0.083}_{-0.115}$	$2.293^{+0.396}_{-1.088}$
	+3%/-3%	+1%/-4%	+250%/-250%	+25%/-8%	+9%/-12%	+17%/-47%
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 006593150-01 / KOI 3037.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-37 ± 12	$1.70^{+0.22}_{-0.18}$	1328^{+74}_{-56}	3649^{+237}_{-265}	23^{+11}_{-9}
Alt.	-35 ± 13	$1.32^{+0.21}_{-0.17}$	1325^{+76}_{-53}	3935^{+309}_{-311}	37^{+18}_{-15}

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

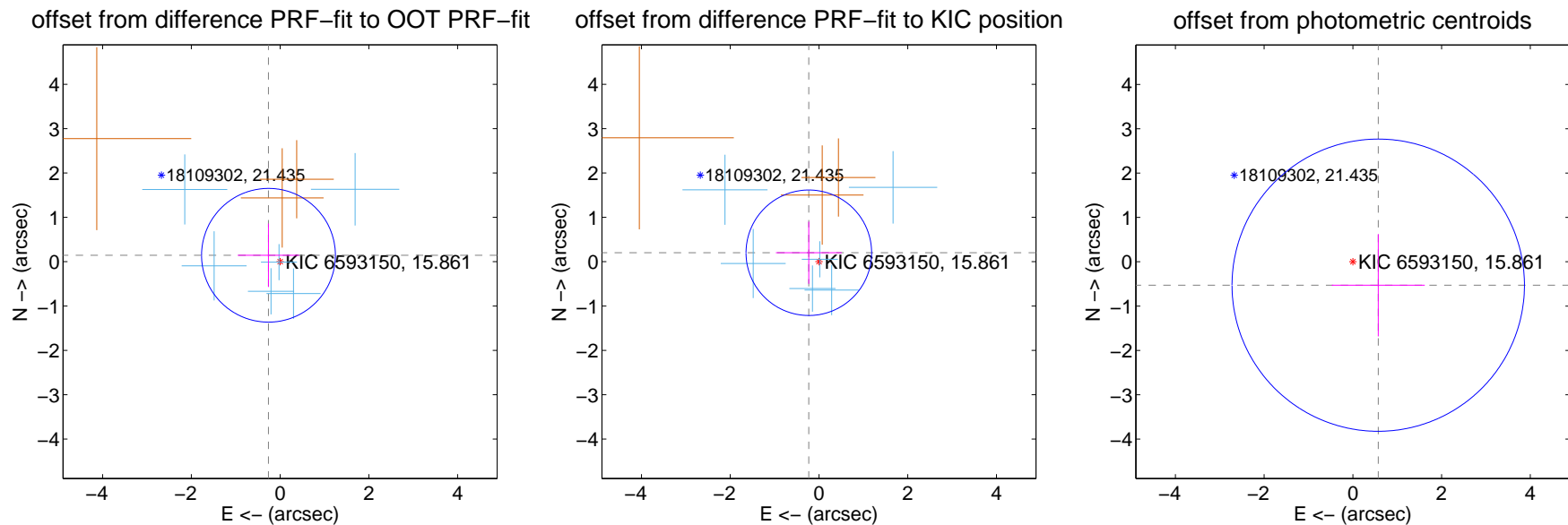
DV Centroid Data

Supplemental centroid analysis for 006593150-01. Kepler magnitude: 15.86. Transit SNR 13.70

There are 6 quarters with good PRF difference image offsets

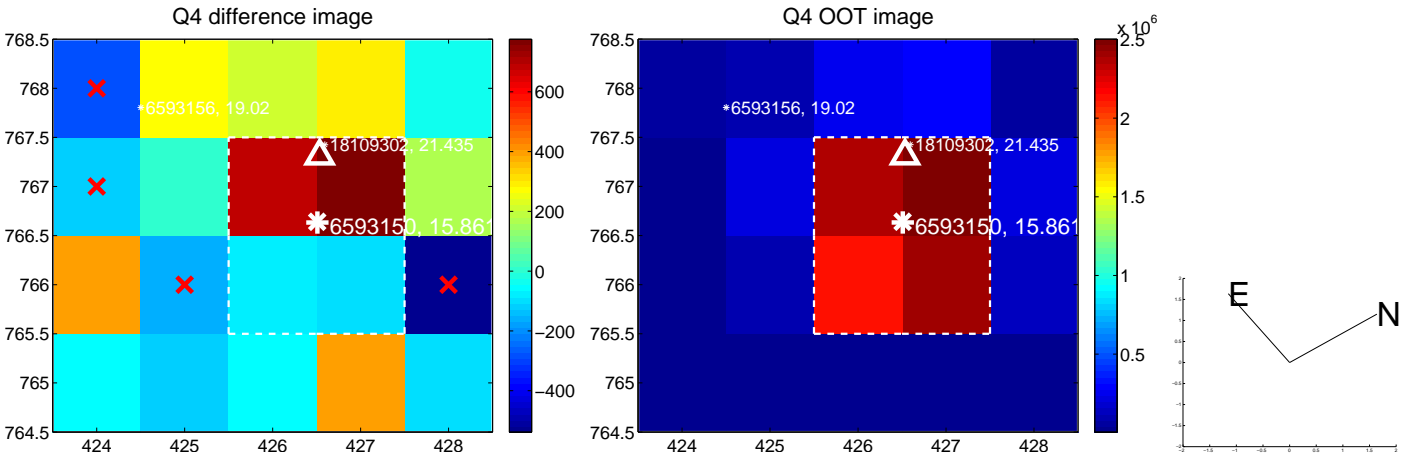
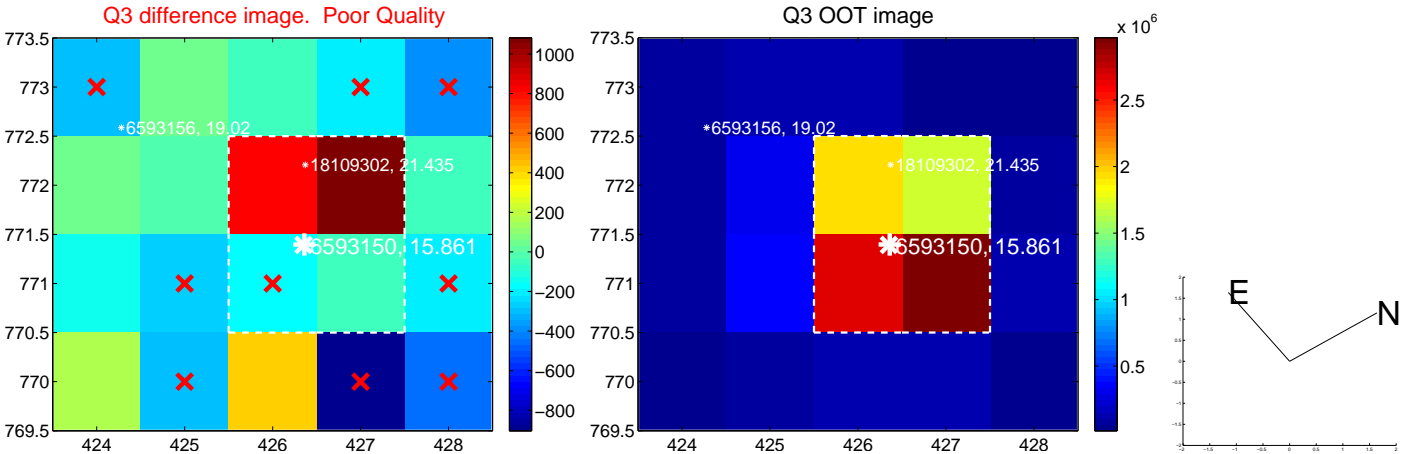
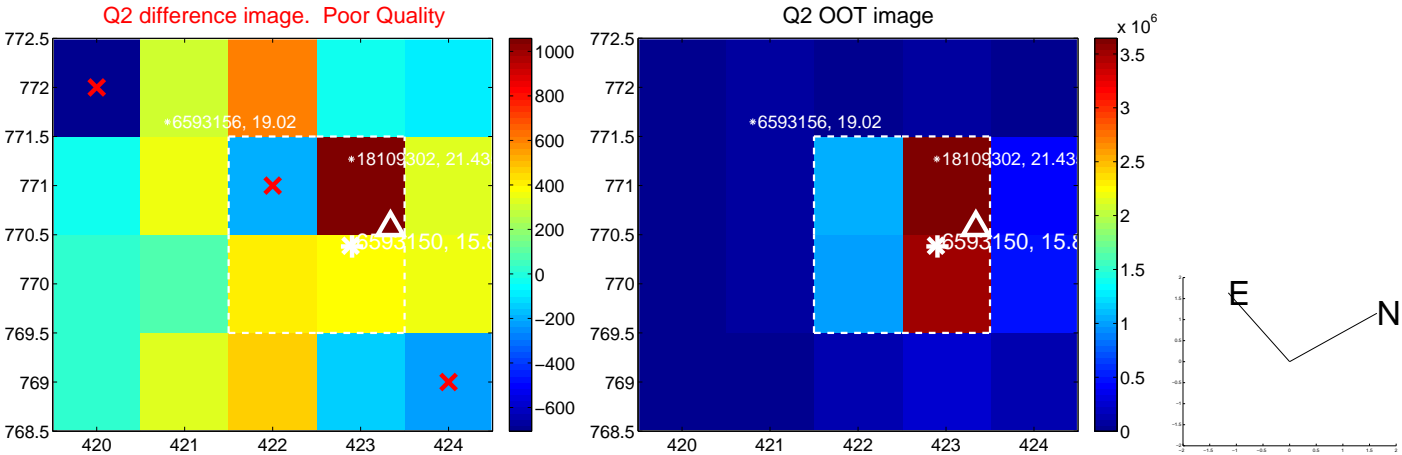
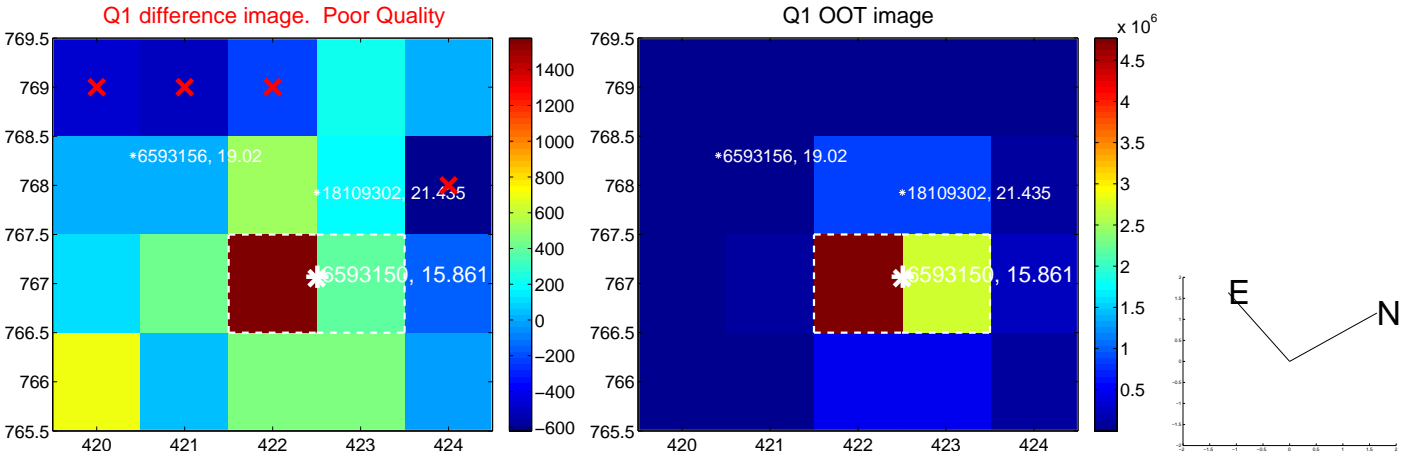
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.299 ± 0.503	0.60	0.262 ± 0.693	0.145 ± 0.714
PRF-fit source offset from KIC position	0.305 ± 0.472	0.65	0.229 ± 0.743	0.202 ± 0.700
photometric centroid source offset	0.78 ± 1.10	0.71	-0.57 ± 1.05	-0.53 ± 1.15

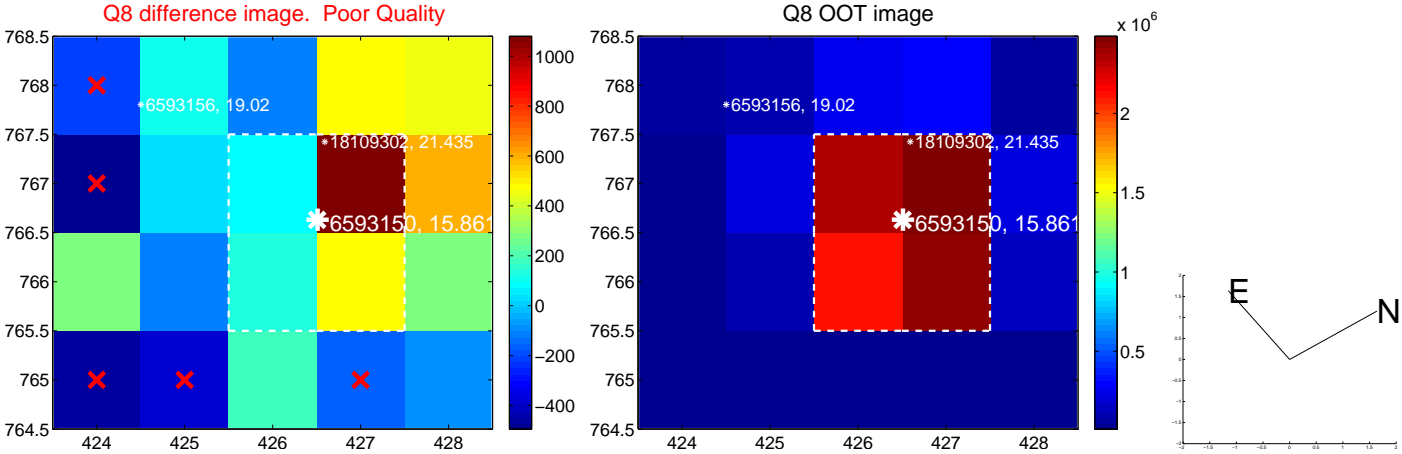
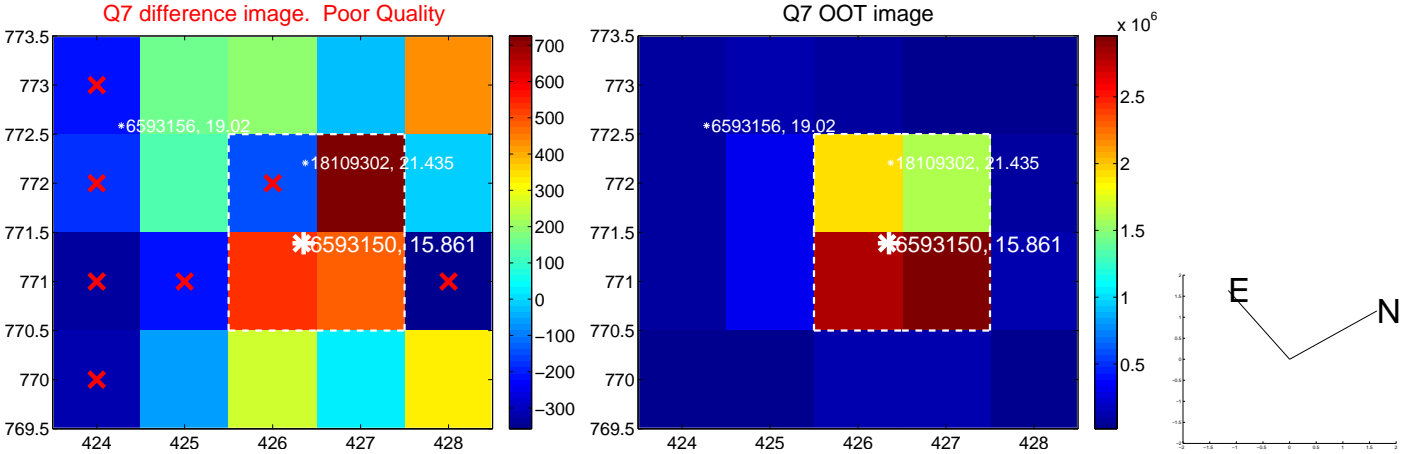
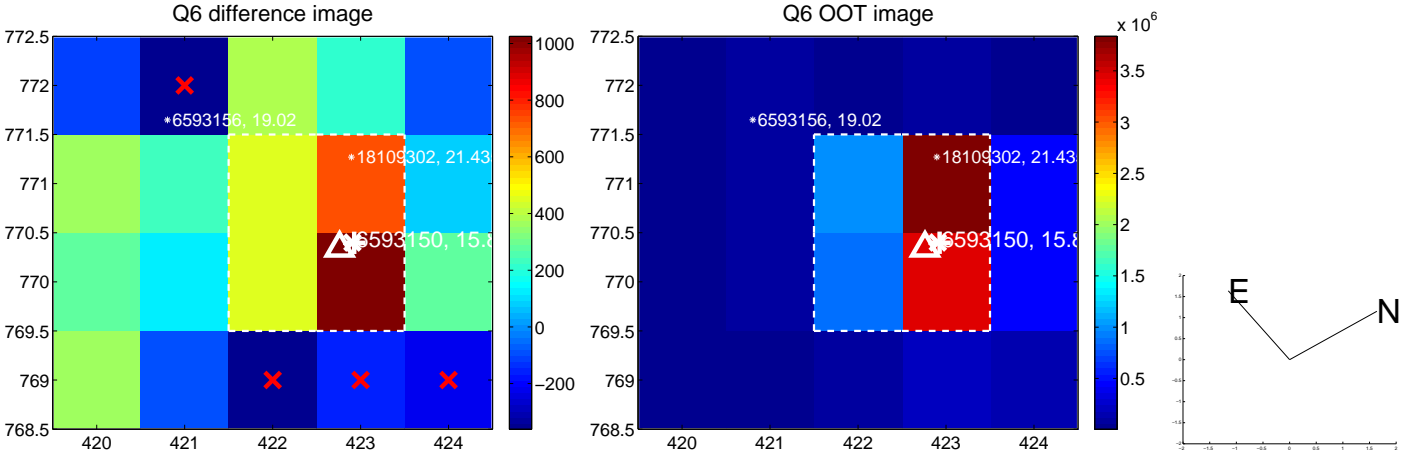
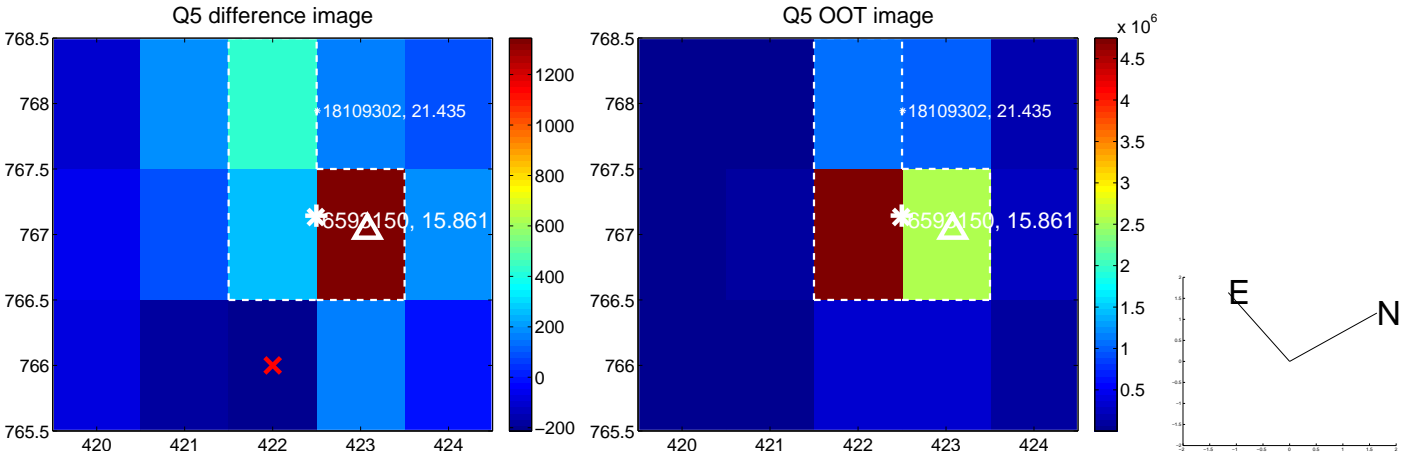


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

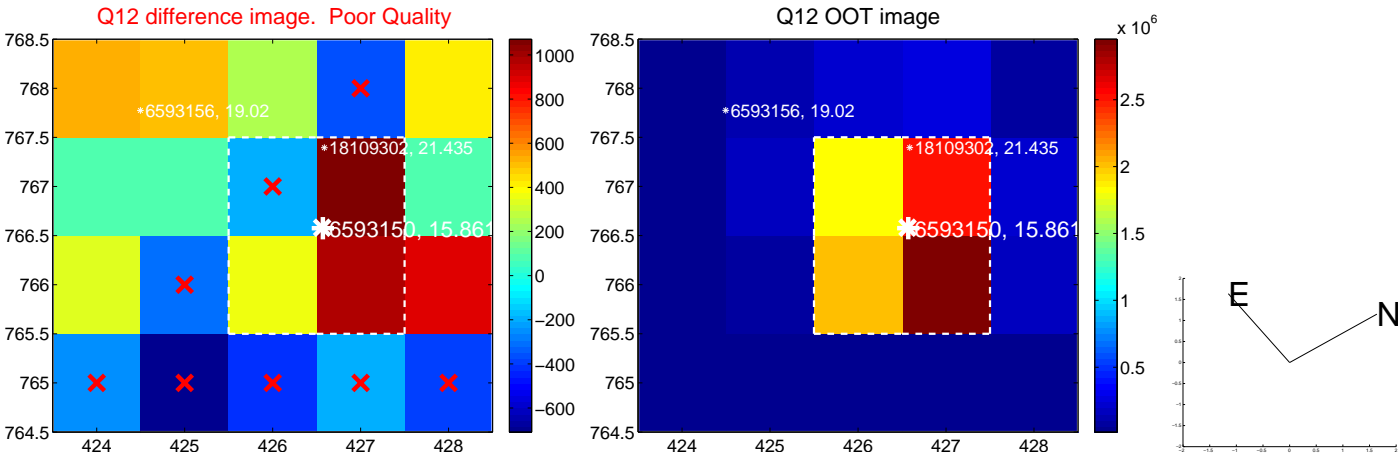
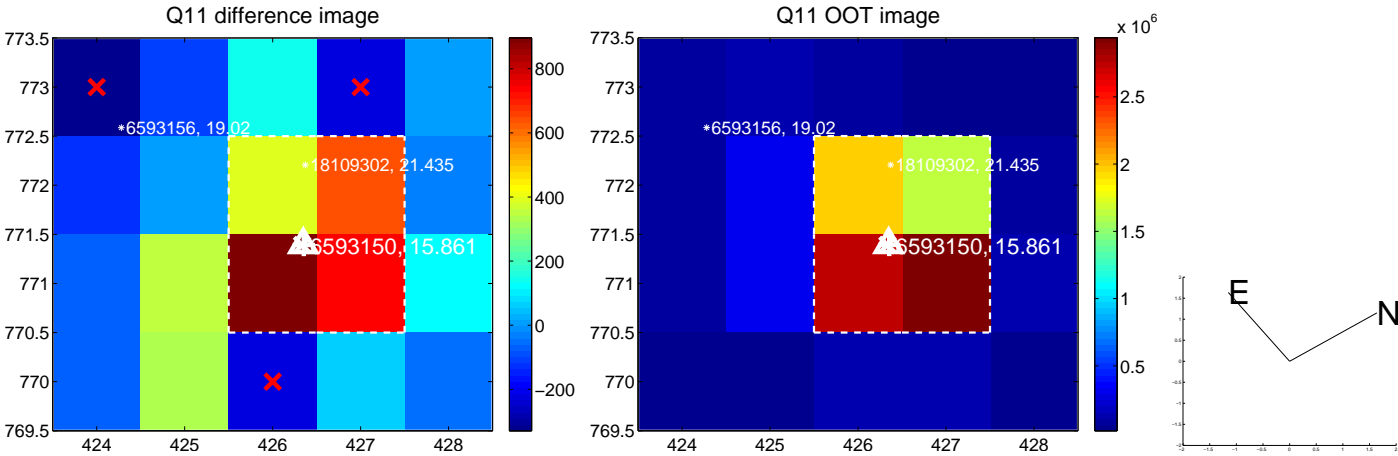
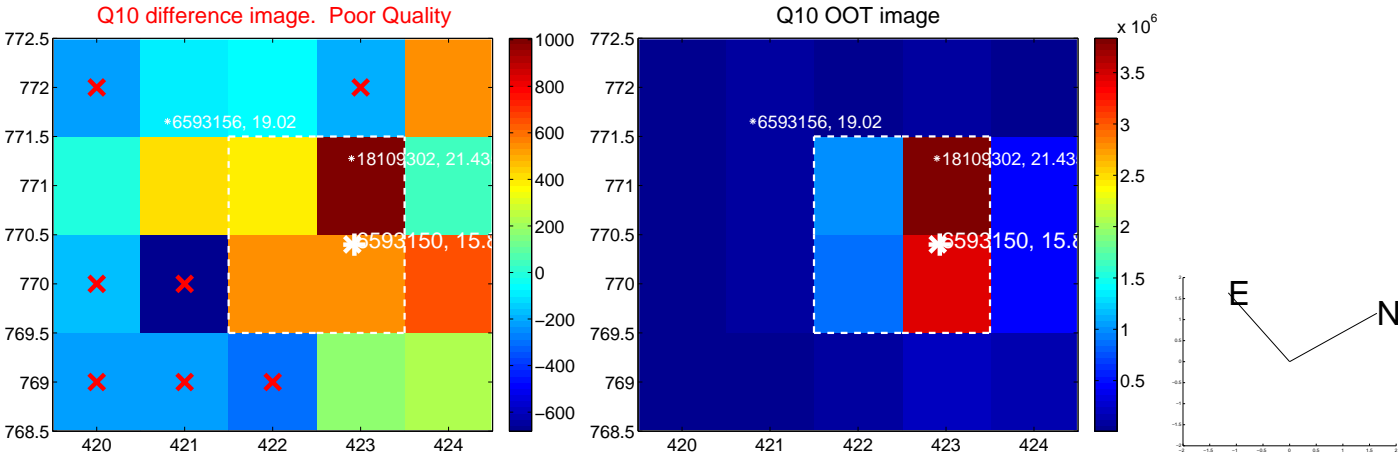
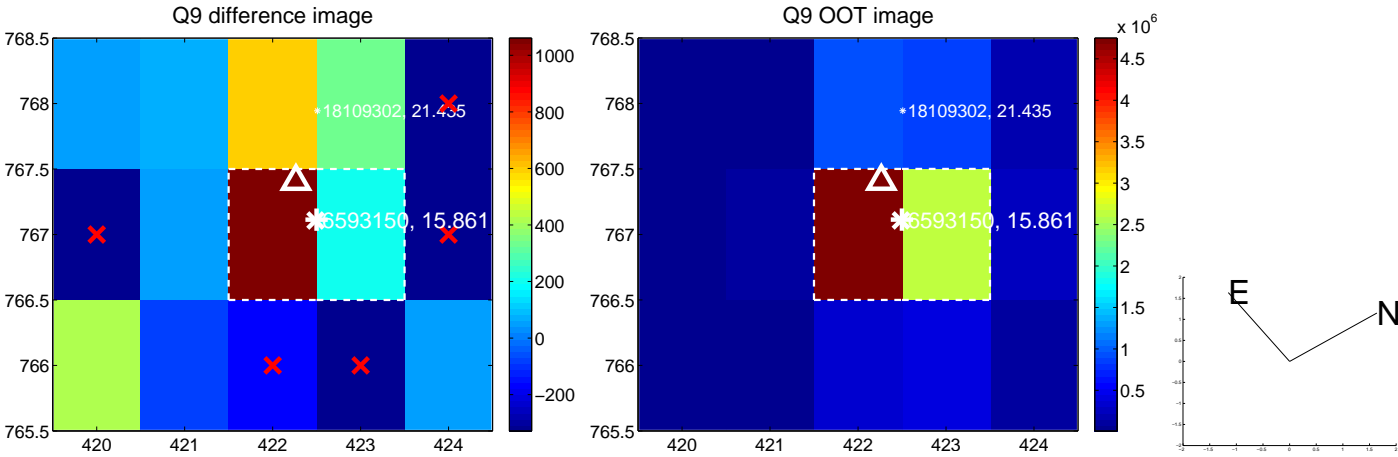
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



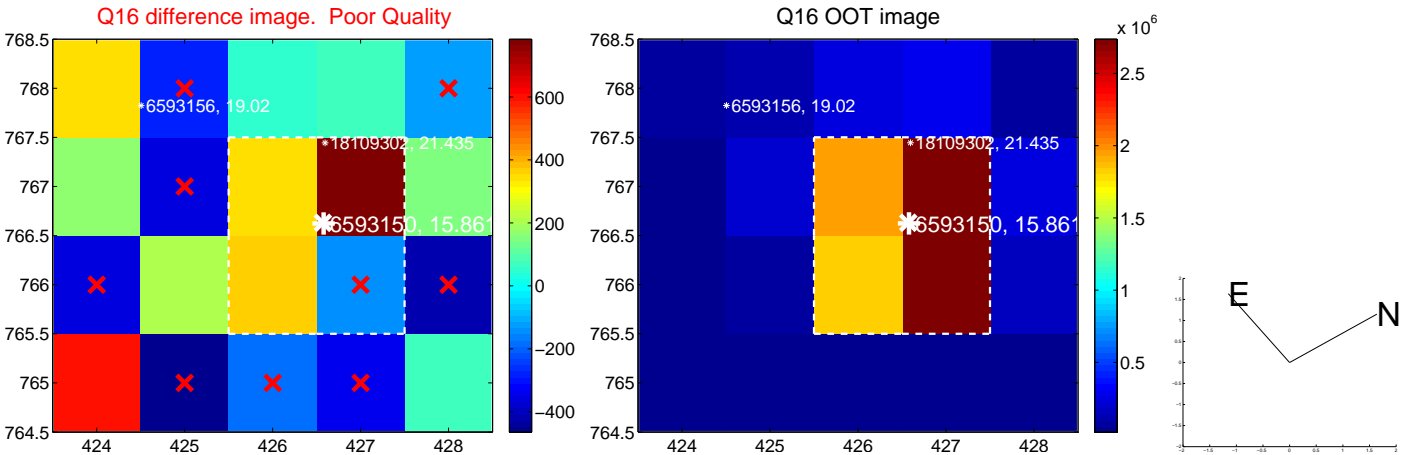
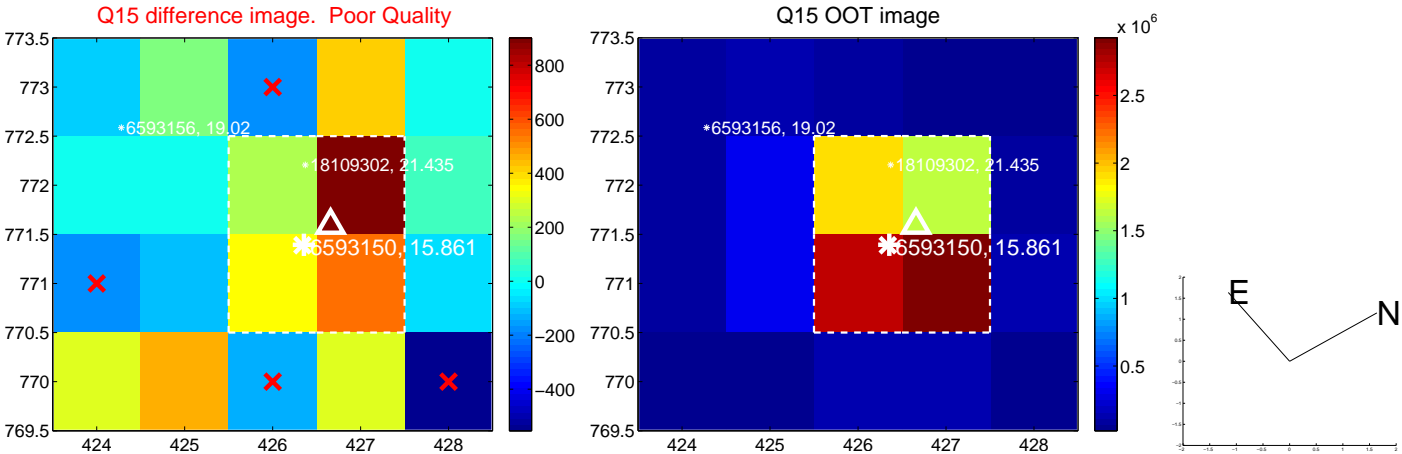
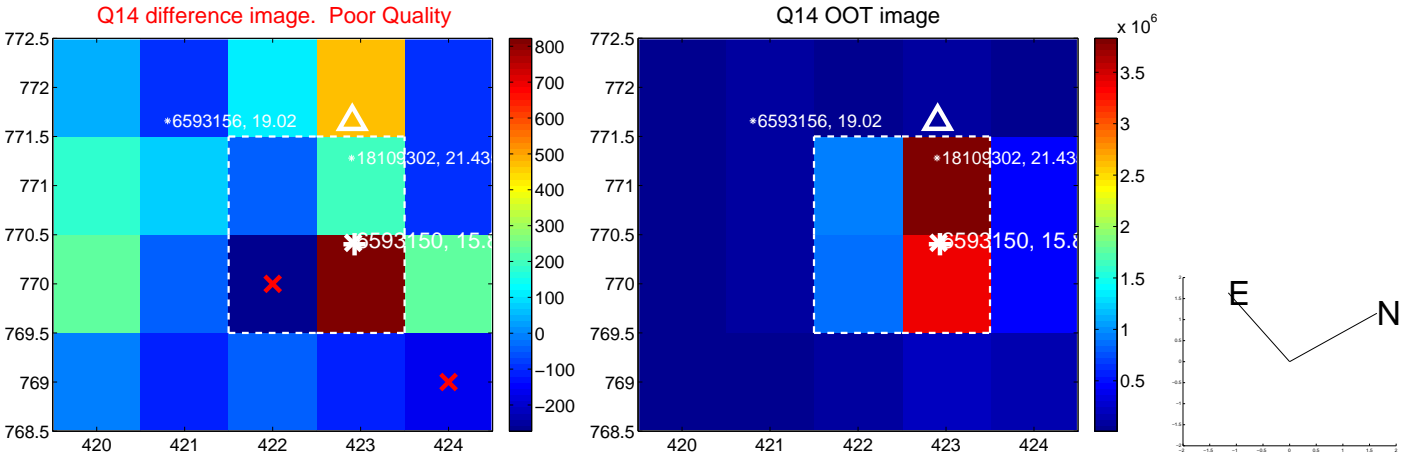
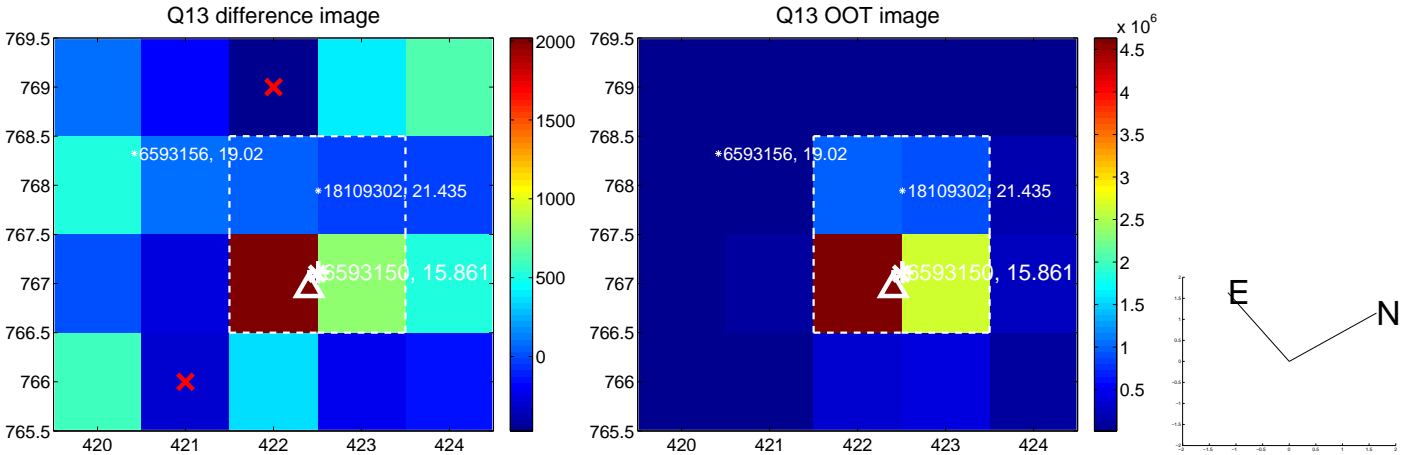
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



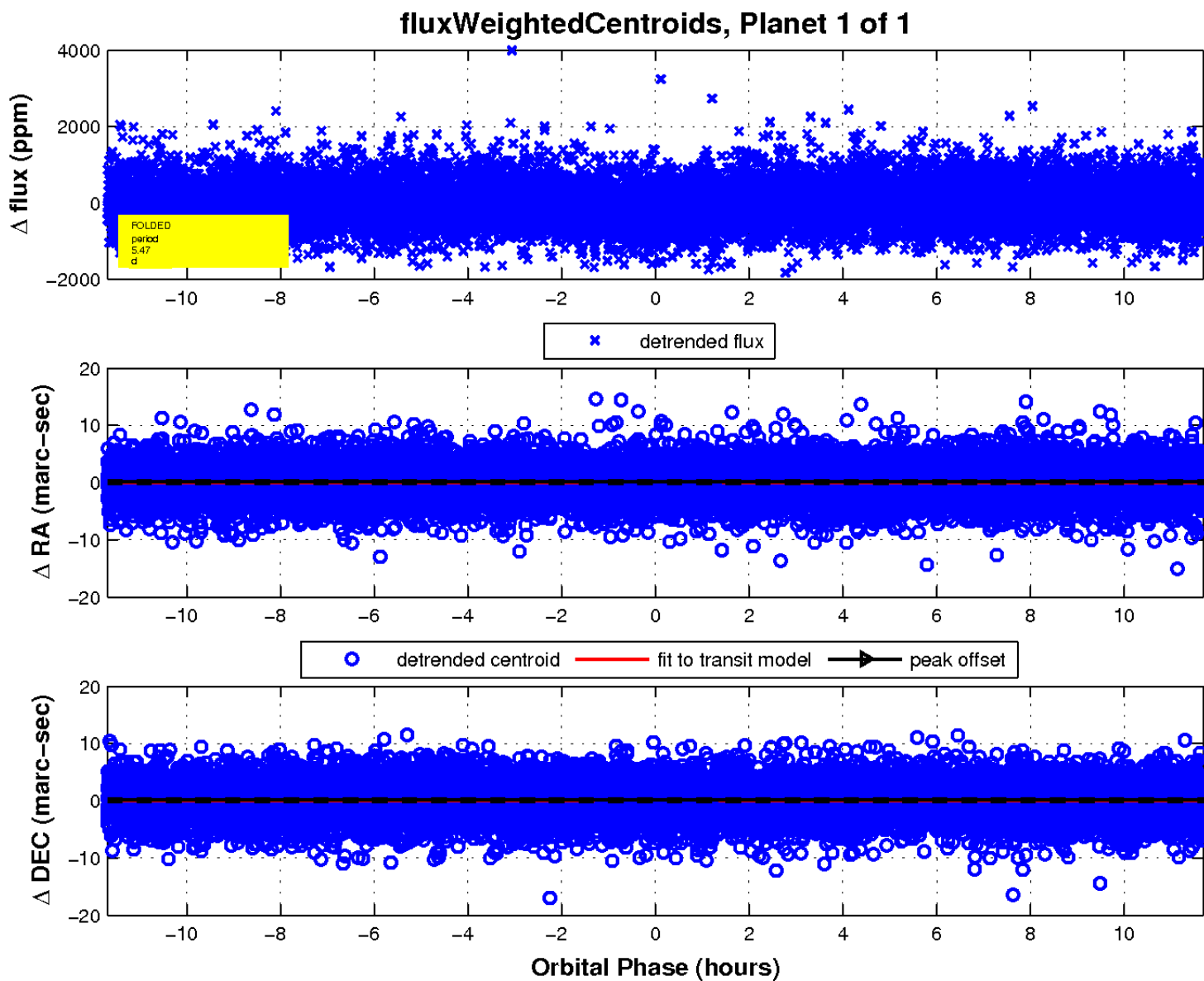
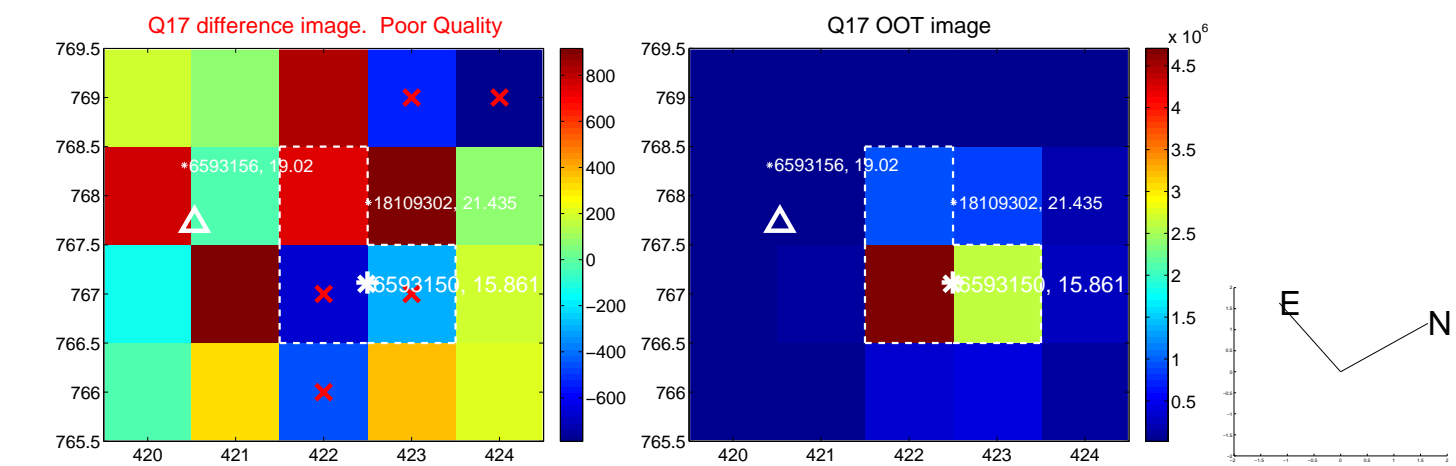
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

