

KIC 007601665

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})
007601665-01	OBS	7842.01	3.111457	132.494095	31.2	3.281	7.8	8.7	1.27	6450	0.83	1299.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007601665-01	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.

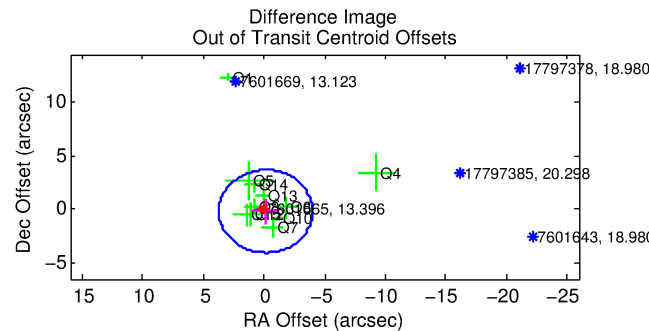
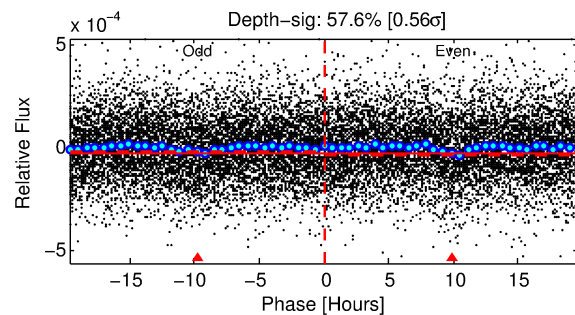
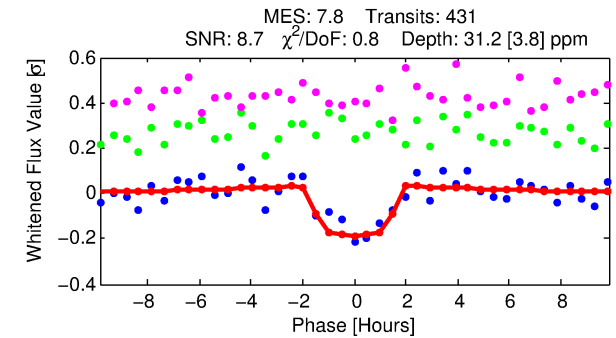
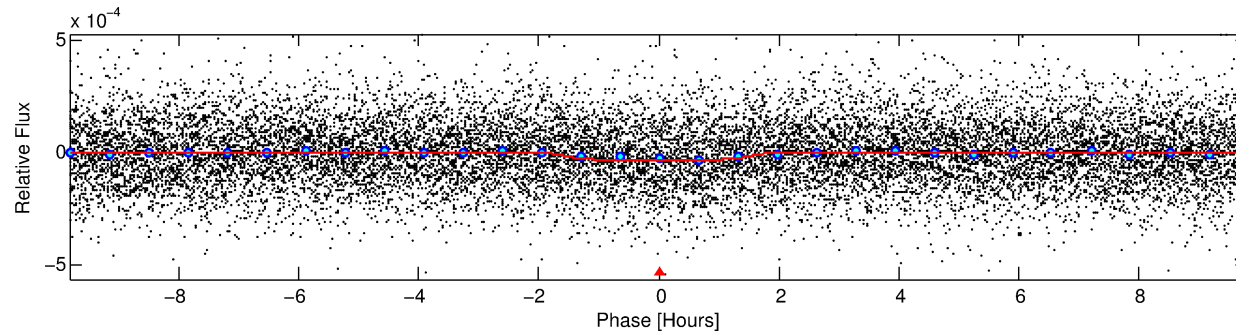
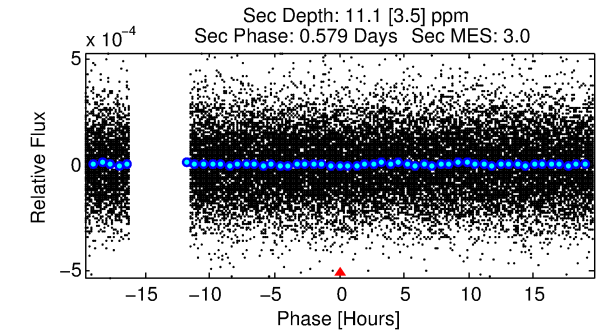
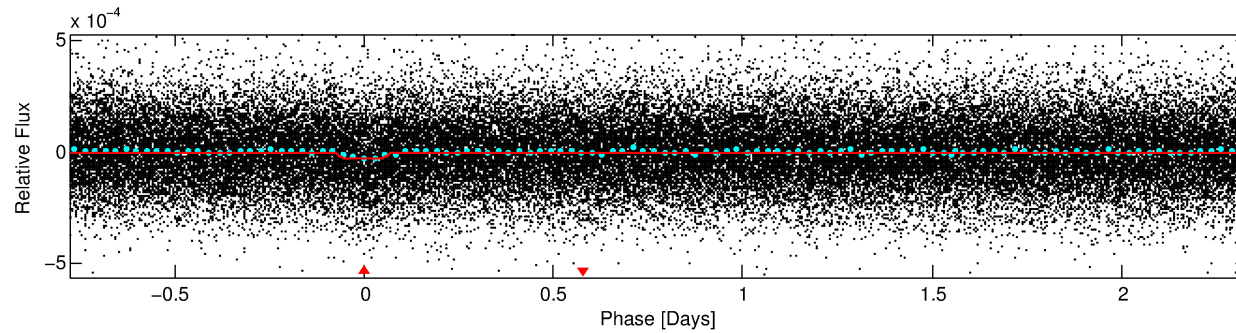
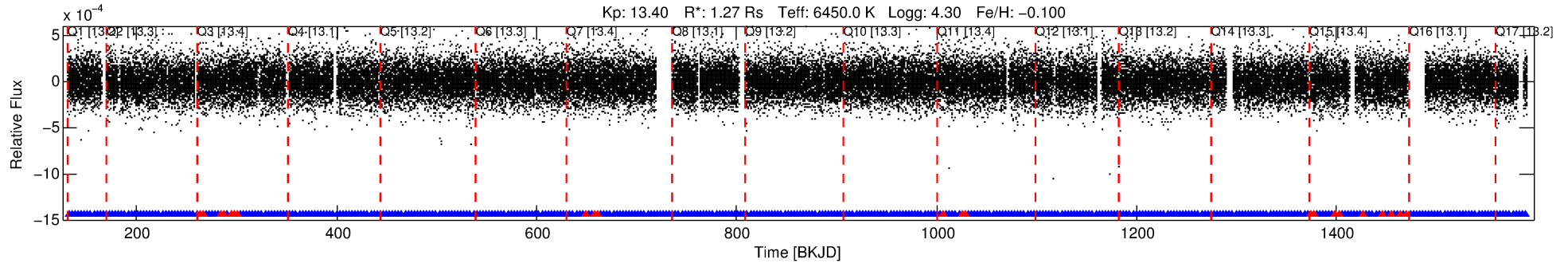
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007601665-01

No Significant Match Found

DV One-Page Summary

KIC: 7601665 Candidate: 1 of 1 Period: 3.111 d



DV Fit Results:

Period = 3.11146 [0.00003] d
Epoch = 132.4941 [0.0050] BKJD
Rp/R* = 0.0060 [0.0027]
a/R* = 3.39 [7.86]
b = 0.90 [0.54]
Seff = 1299.37 [514.57]
Teq = 1531 [152] K
Rp = 0.83 [0.45] Re
a = 0.0440 [0.0115] AU
Ag = 17.09 [17.38] [0.93σ]
Teffp = 4813 [1148] K [2.83σ]

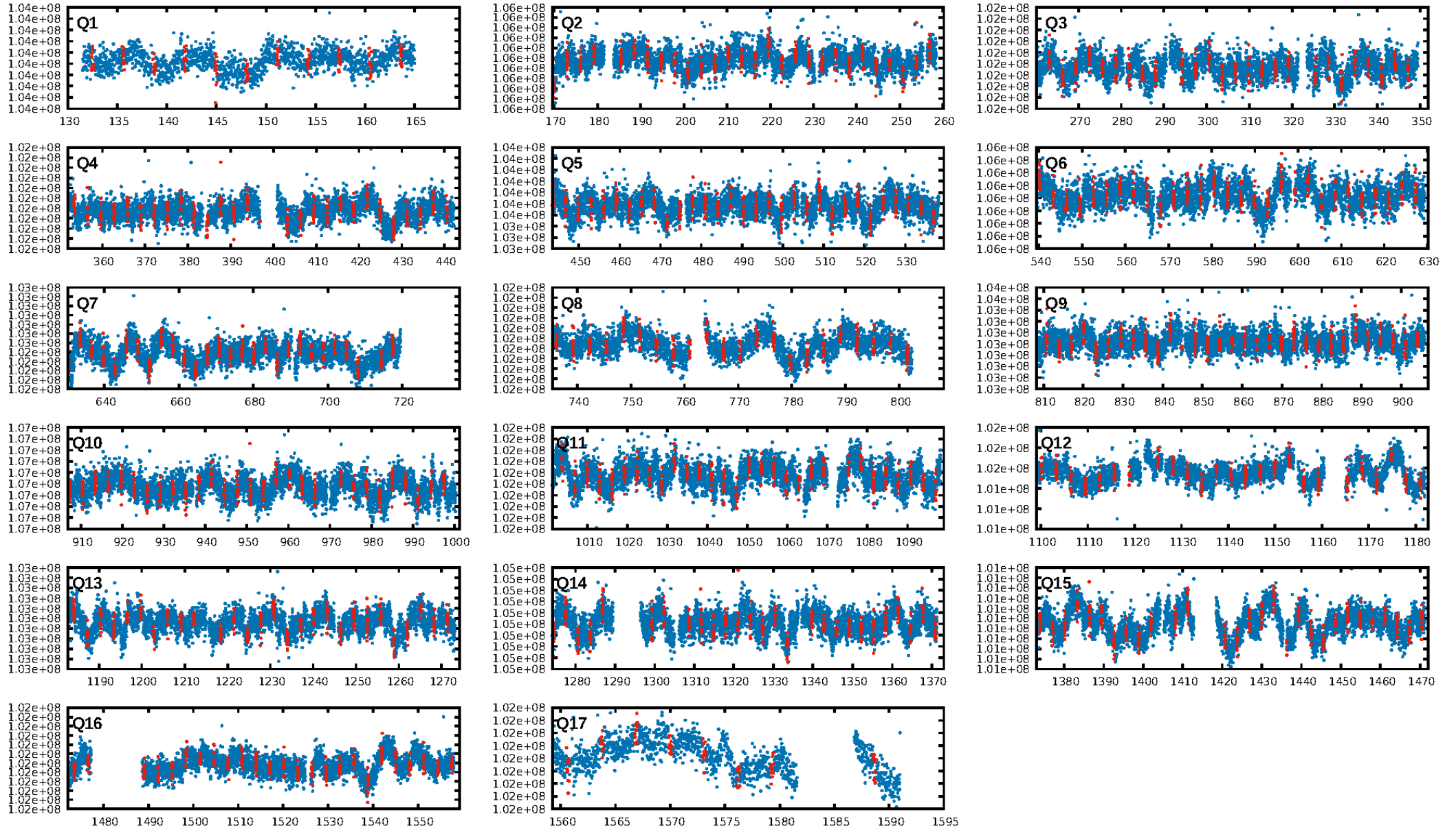
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.37e-14
RollingBand-fgt: 0.95 [390/412]
GhostDiagnostic-chr: -4.172
Centroid-sig: 0.6%
Centroid-so: 4.439 arcsec [2.69σ]
OotOffset-rm: 0.220 arcsec [0.17σ]
KicOffset-rm: 0.257 arcsec [0.26σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [17/17]

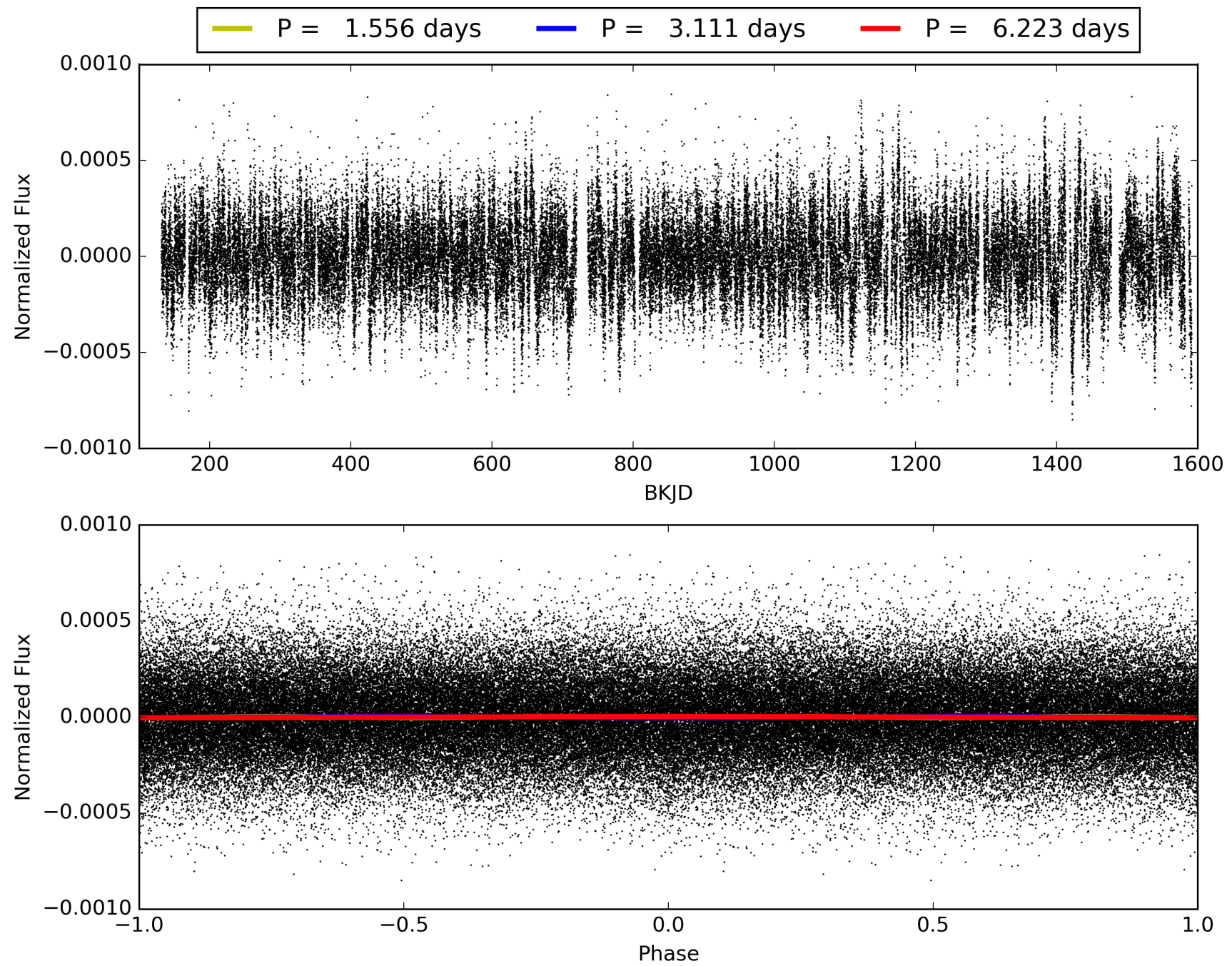
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:57:56 Z

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

TCE 007601665-01, PDC Light Curves

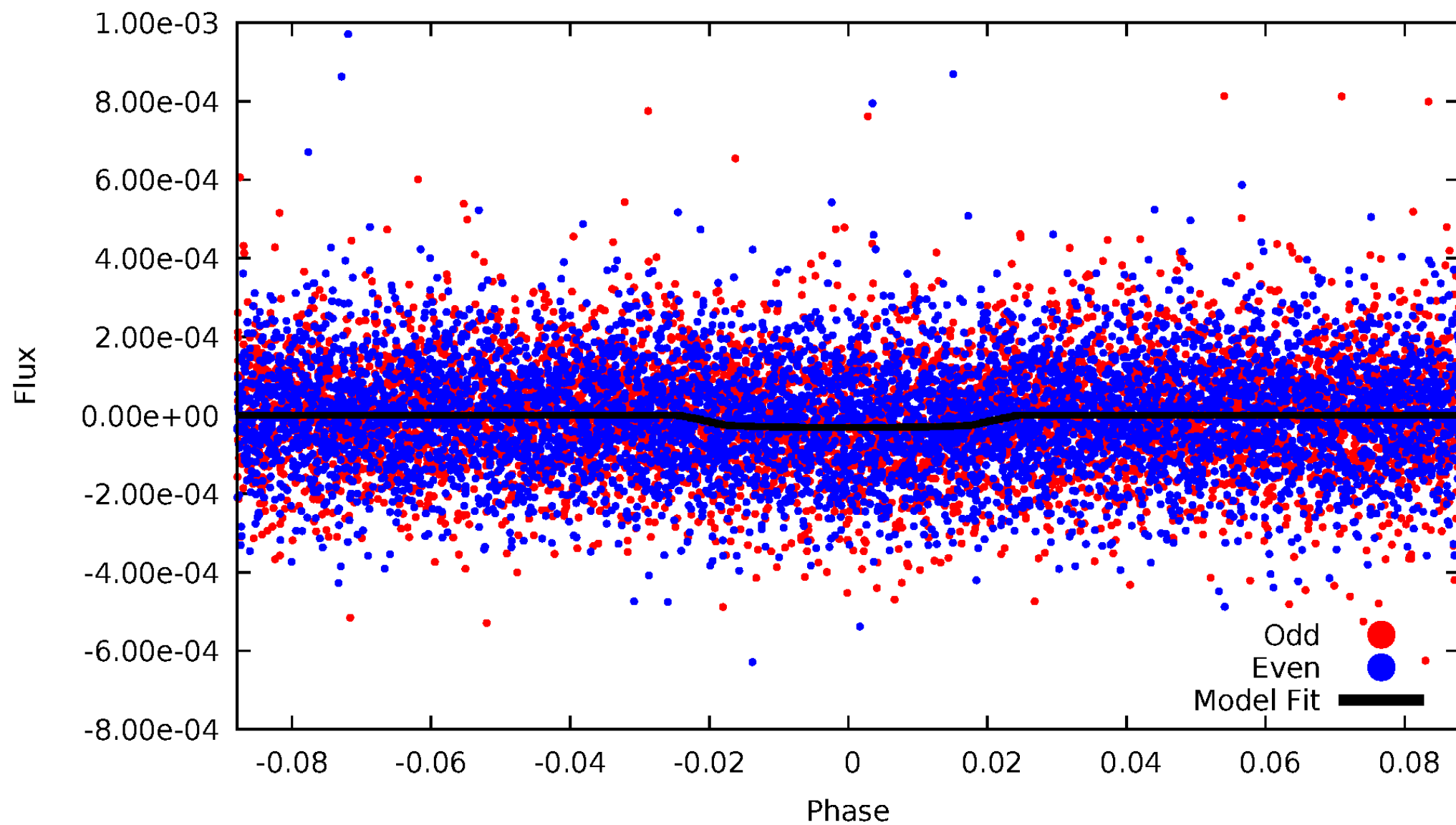


TCE 007601665-01



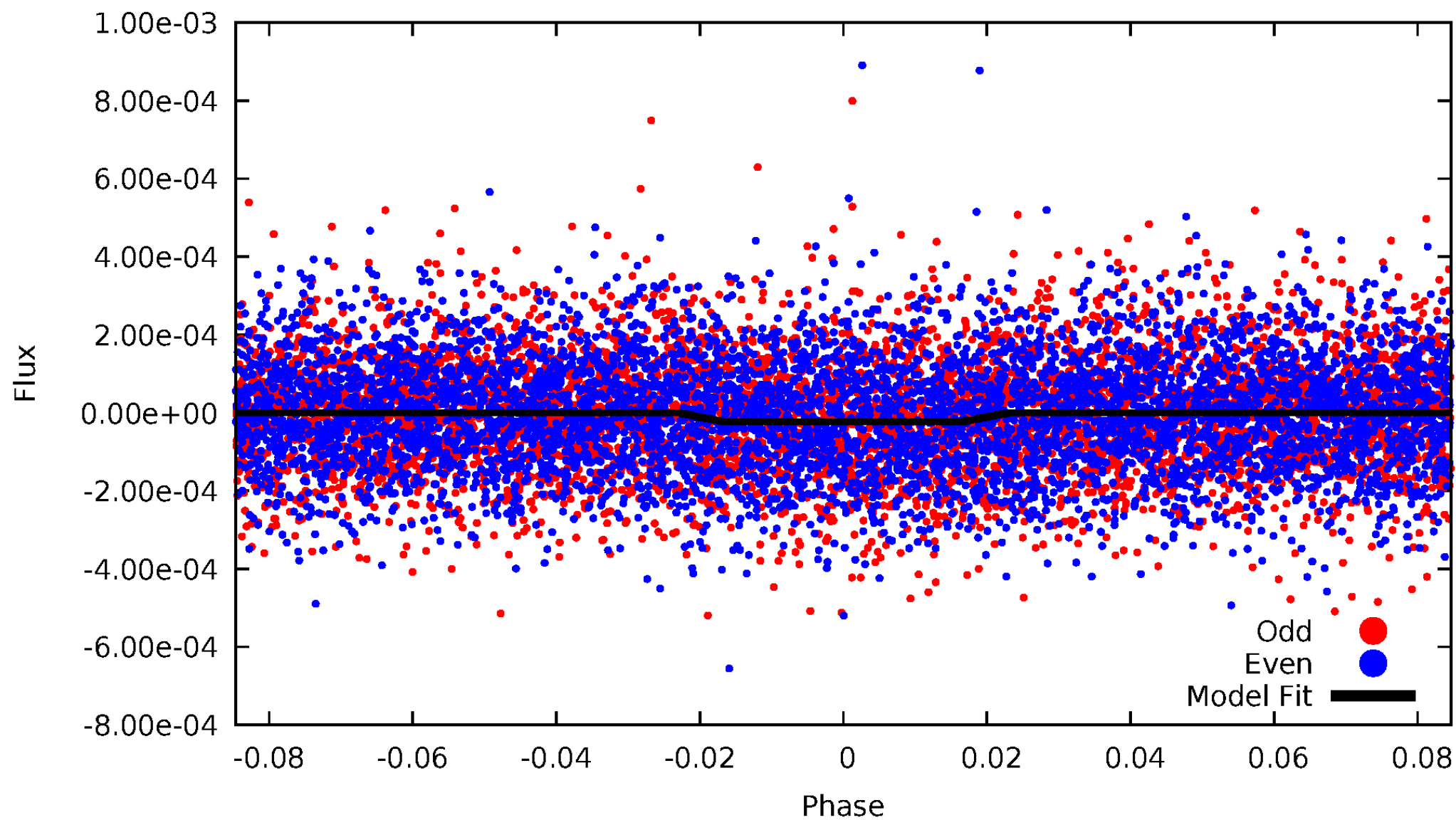
DV Odd/Even

TCE 007601665-01



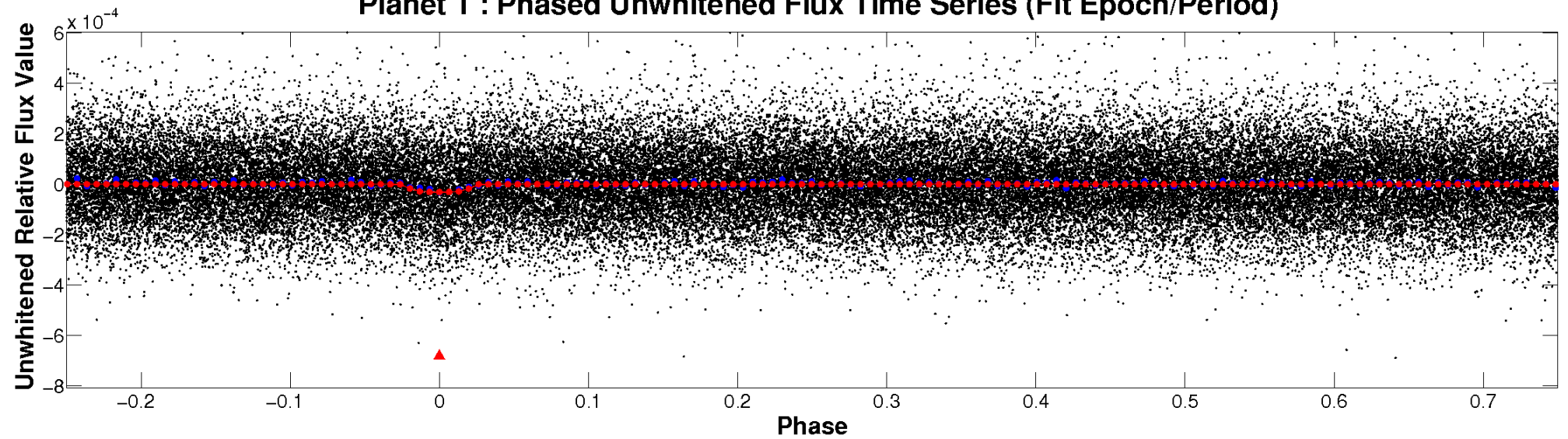
ALT Odd/Even

TCE 007601665-01

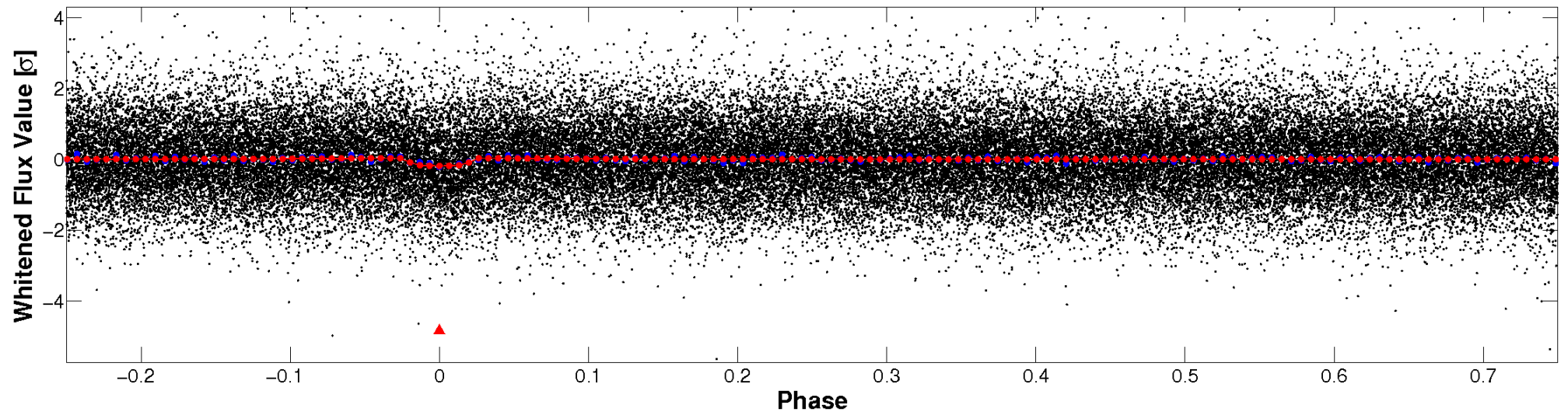


Non-Whitened Vs. Whitened Light Curve

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

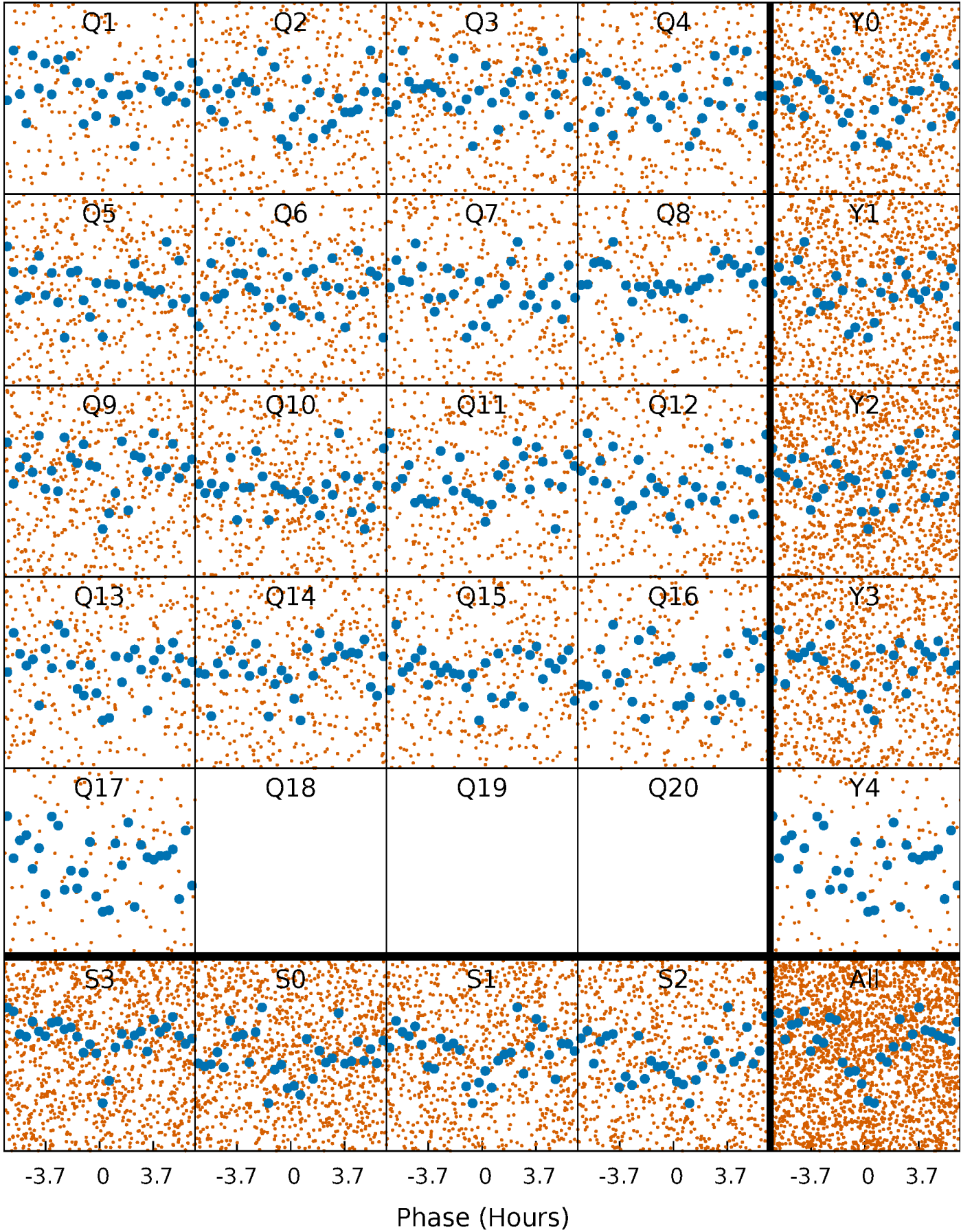


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



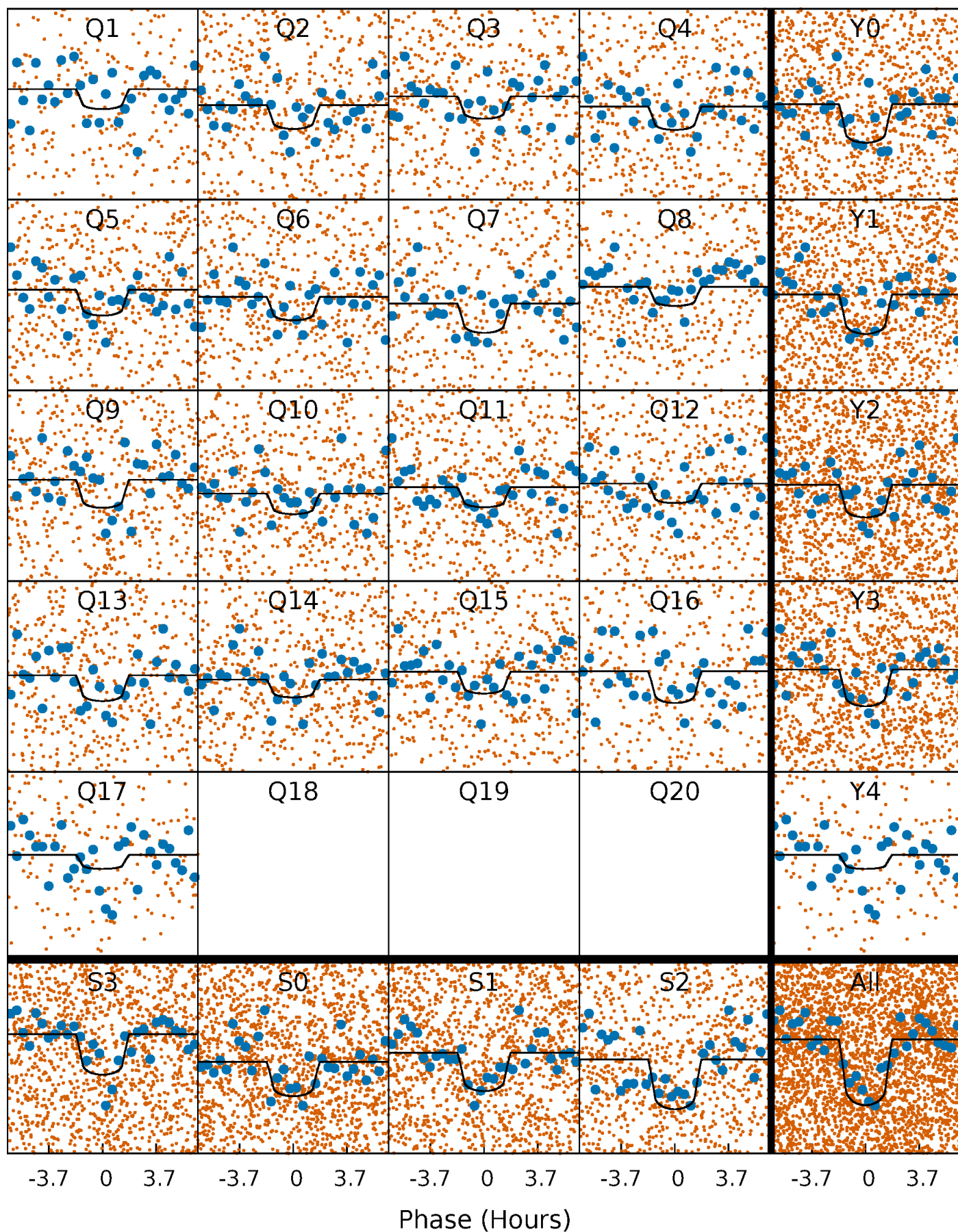
PDC Quarter-Phased Transit Curves

TCE 007601665-01 P= 3.111457 Days $T_0=132.494095$ (BKJD)



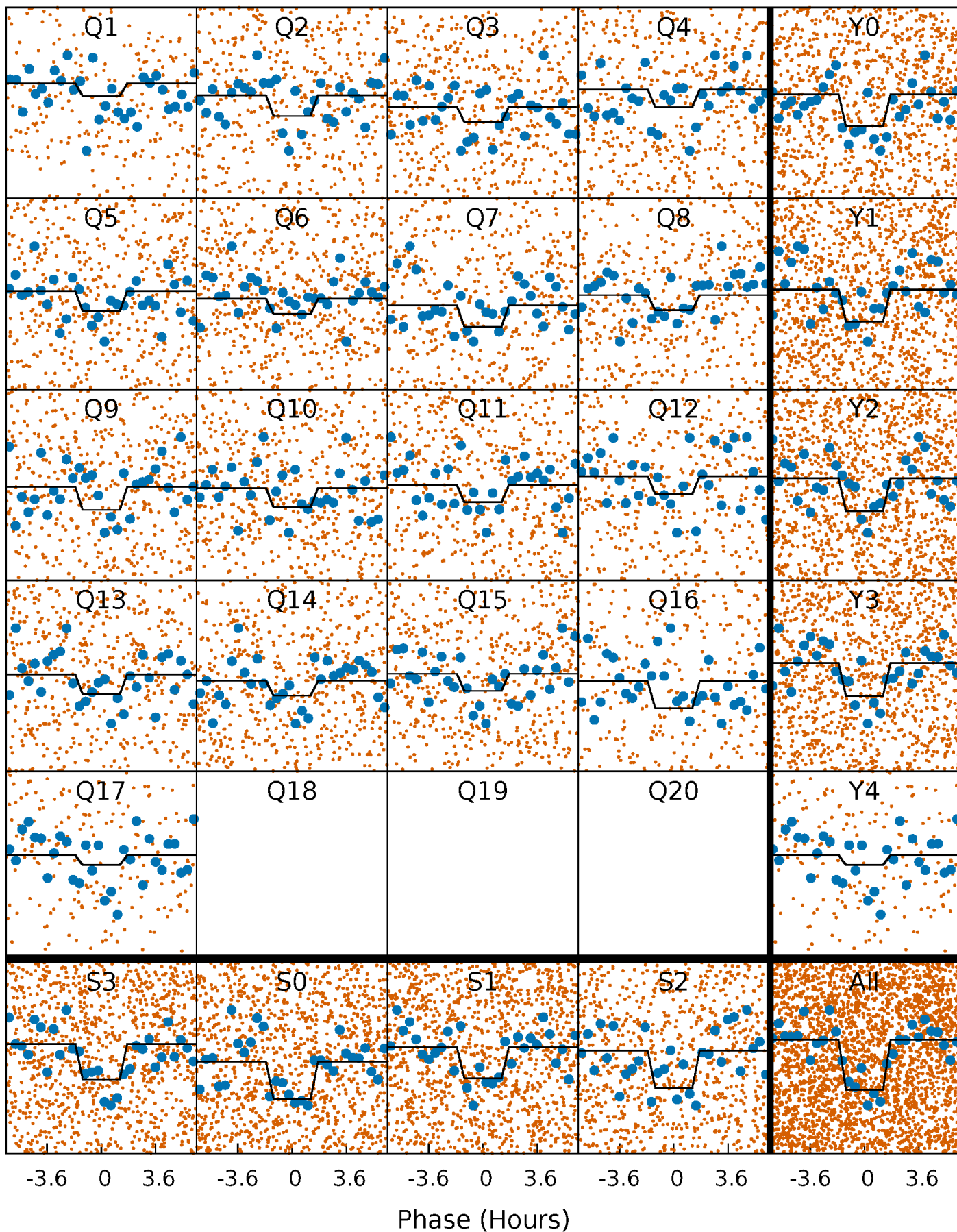
DV Quarter-Phased Transit Curves

TCE 007601665-01 P= 3.111457 Days $T_0=132.494095$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

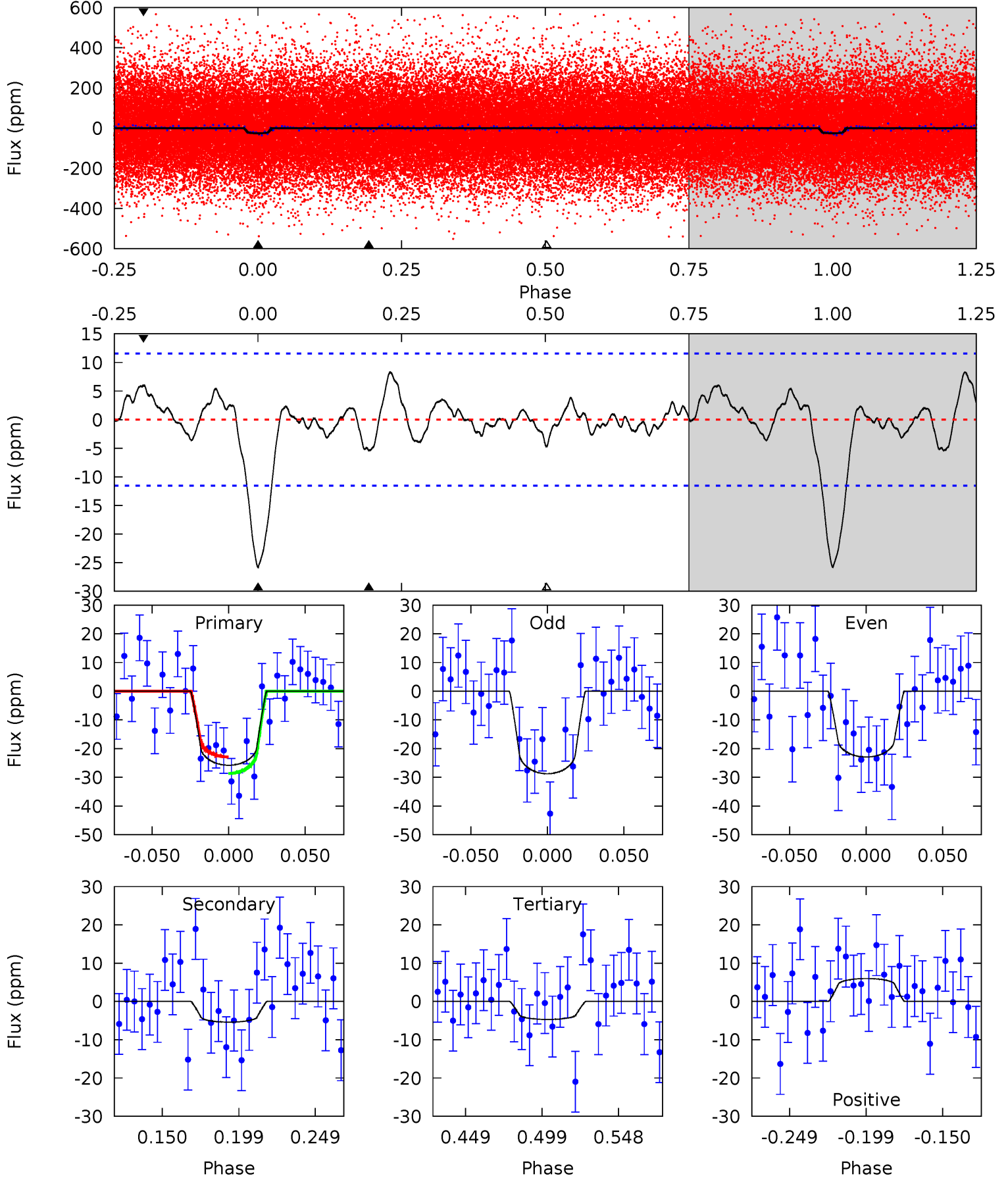
TCE 007601665-01 P= 3.111407 Days $T_0=132.500870$ (BKJD)



DV Model-Shift Uniqueness Test

007601665-01, P = 3.111457 Days, E = 129.382638 Days

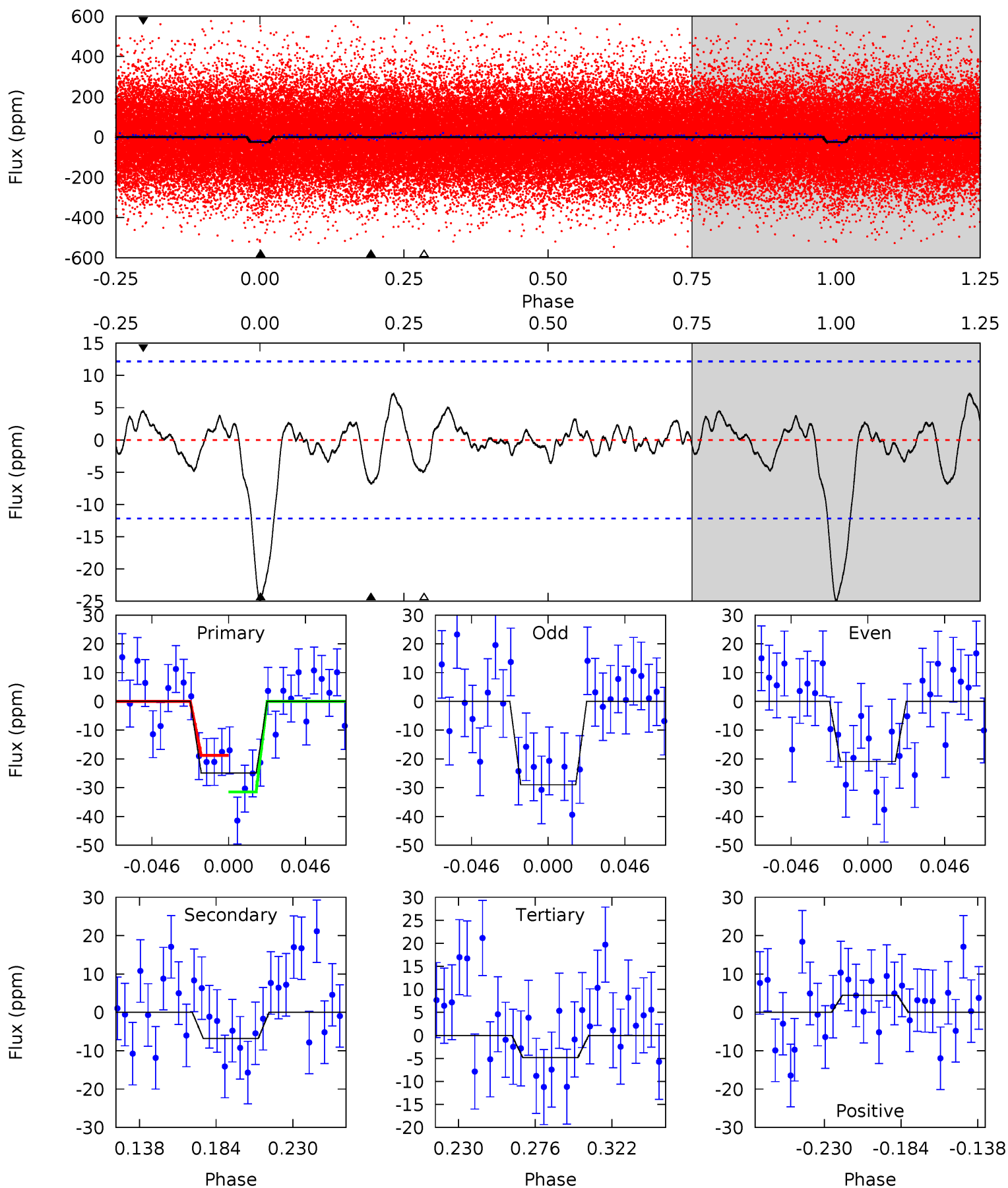
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	2.20	1.92	2.44	4.71	1.96	0.90	8.61	8.08	0.29	-0.24	1.19	0.99	0.24	1.17



Alt Model-Shift Uniqueness Test

007601665-01, P = 3.111407 Days, E = 129.389463 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.67	2.64	1.88	1.74	4.73	2.00	0.80	7.79	7.93	0.76	0.90	1.57	1.03	0.22	2.46



Stellar Parameters For KIC 007601665

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6450^{+144}_{-208}	$4.297^{+0.108}_{-0.201}$	$-0.100^{+0.250}_{-0.300}$	$1.273^{+0.405}_{-0.218}$	$1.169^{+0.185}_{-0.152}$	$0.798^{+0.405}_{-0.430}$
	+2%/-3%	+3%/-5%	+250%/-300%	+32%/-17%	+16%/-13%	+51%/-54%
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 007601665-01 / KOI 7842.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 2	$0.88^{+0.39}_{-0.40}$	2165^{+169}_{-123}	4173^{+1079}_{-671}	$7.250^{+16.465}_{-4.604}$
Alt.	-7 ± 3	$0.71^{+0.42}_{-0.37}$	2178^{+161}_{-136}	4740^{+1918}_{-862}	13^{+48}_{-8}

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 $A_{obs} \gg 1.0$

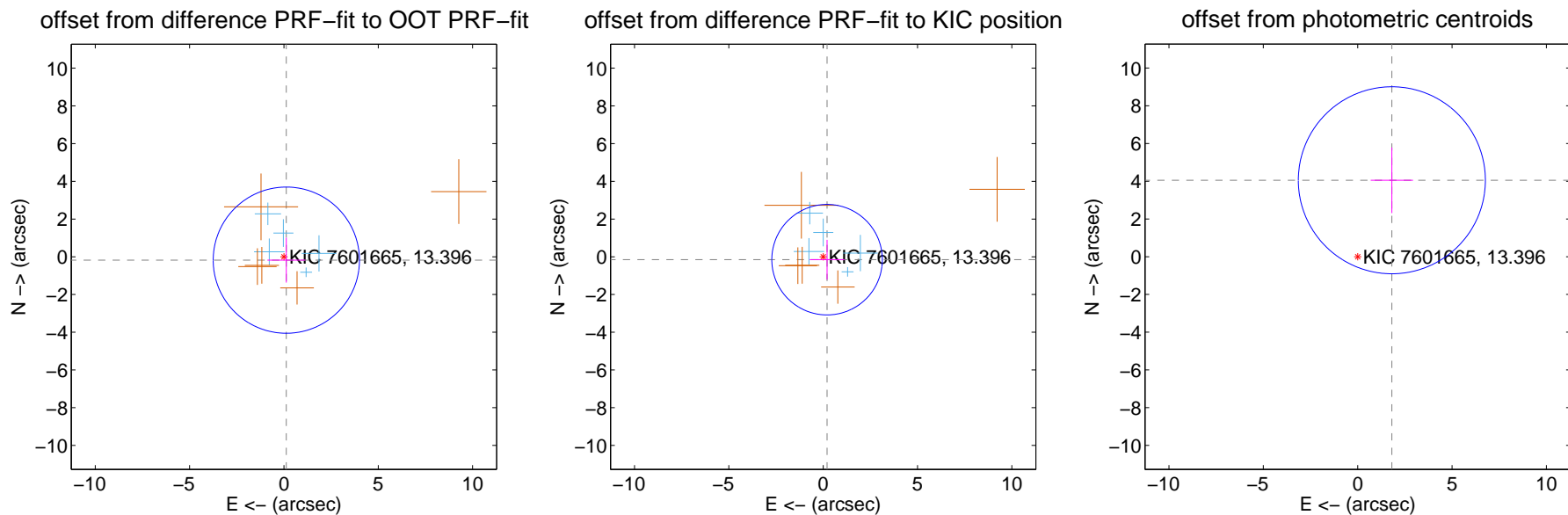
DV Centroid Data

Supplemental centroid analysis for 007601665-01. Kepler magnitude: 13.40. Transit SNR 8.68

There are 6 quarters with good PRF difference image offsets

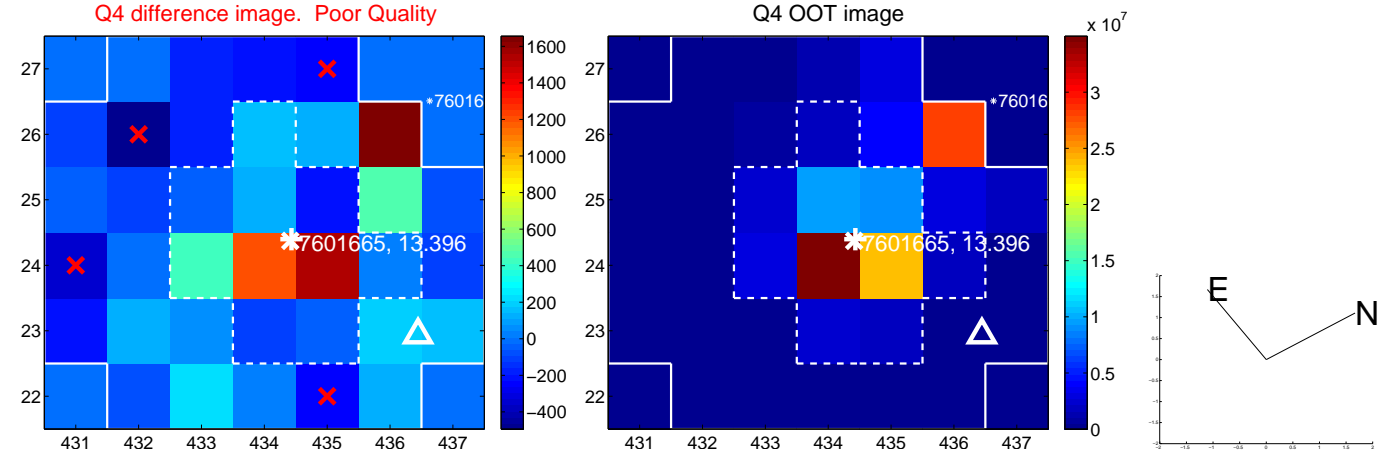
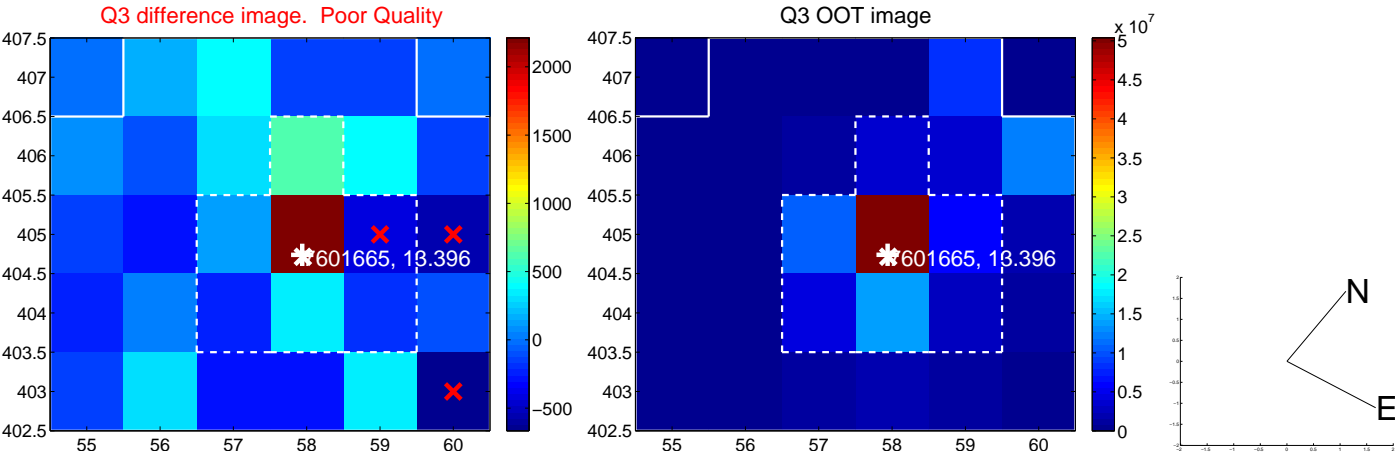
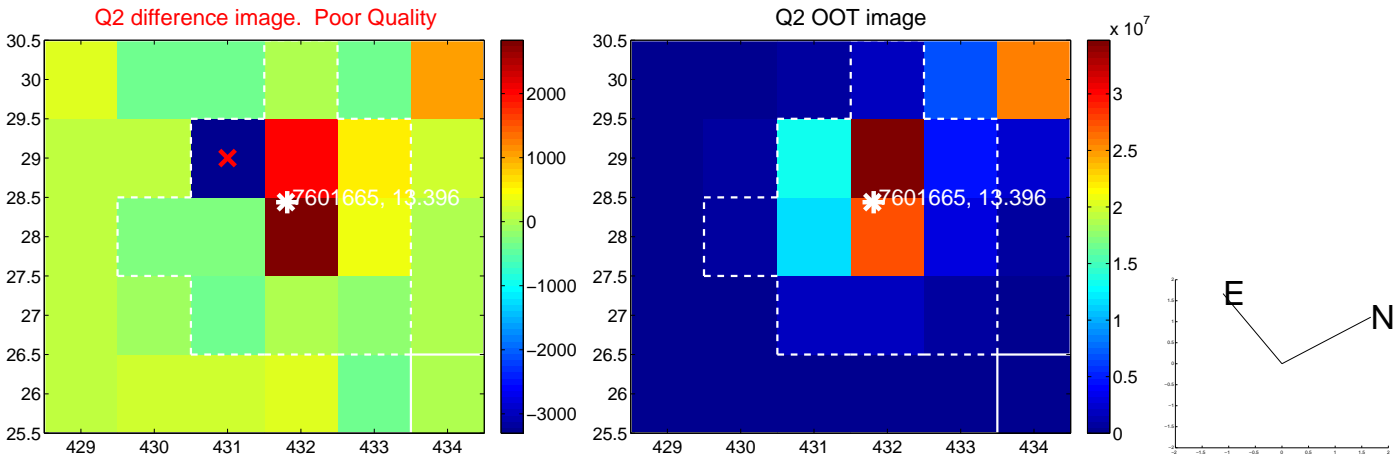
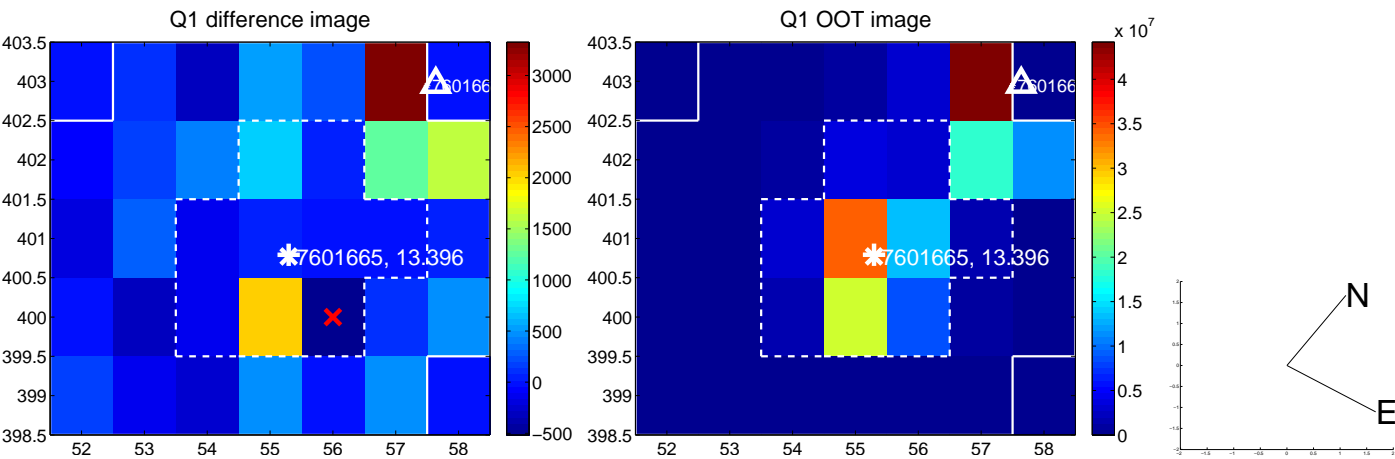
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.220 ± 1.292	0.17	-0.128 ± 1.006	-0.179 ± 1.188
PRF-fit source offset from KIC position	0.257 ± 0.977	0.26	-0.206 ± 0.922	-0.154 ± 1.052
photometric centroid source offset	4.44 ± 1.65	2.69	-1.81 ± 1.12	4.05 ± 1.74

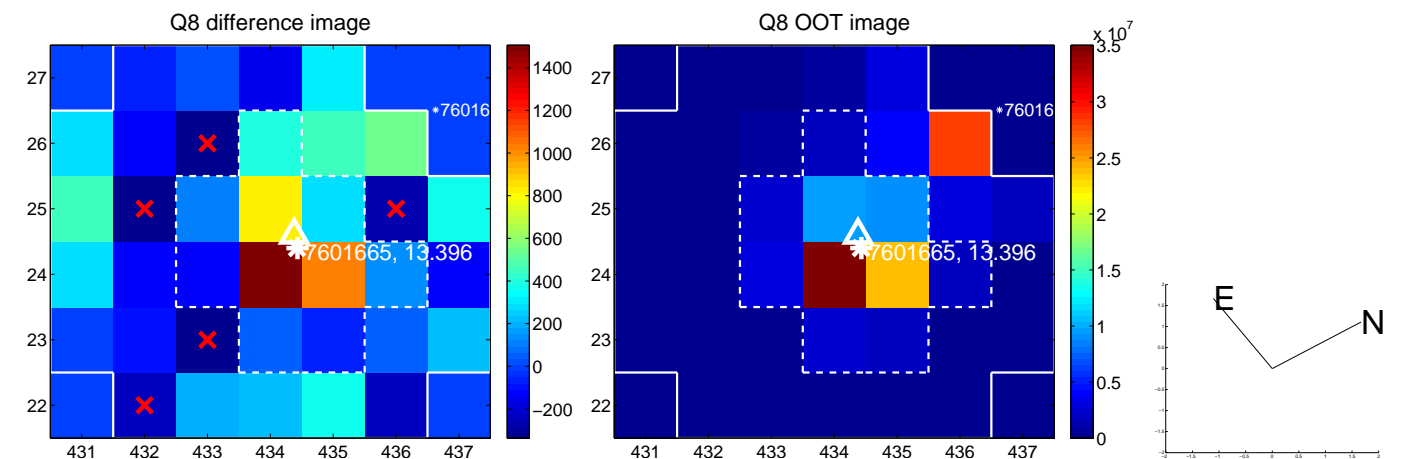
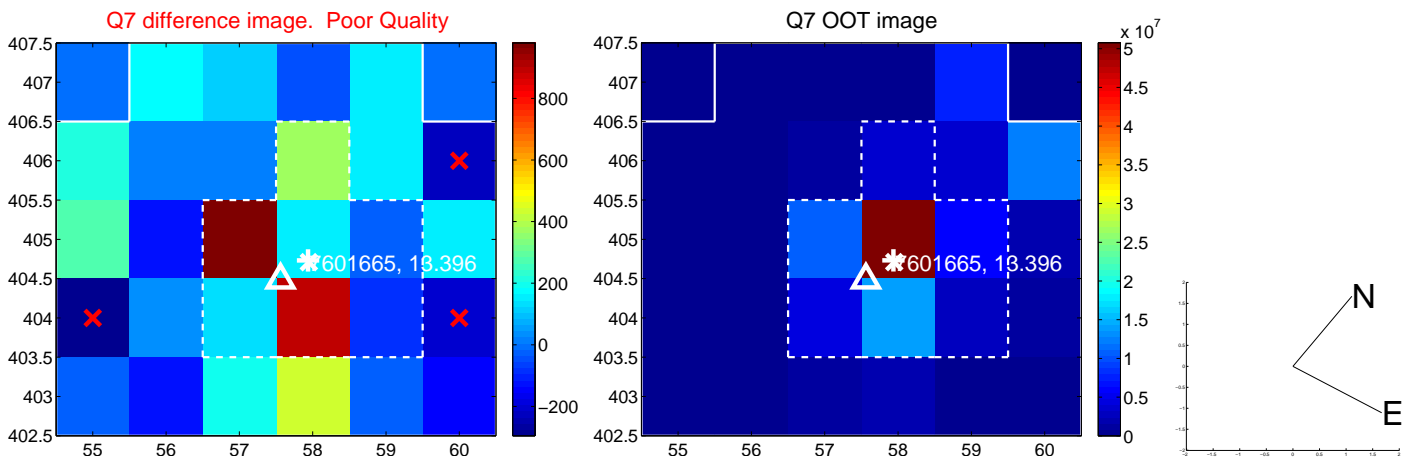
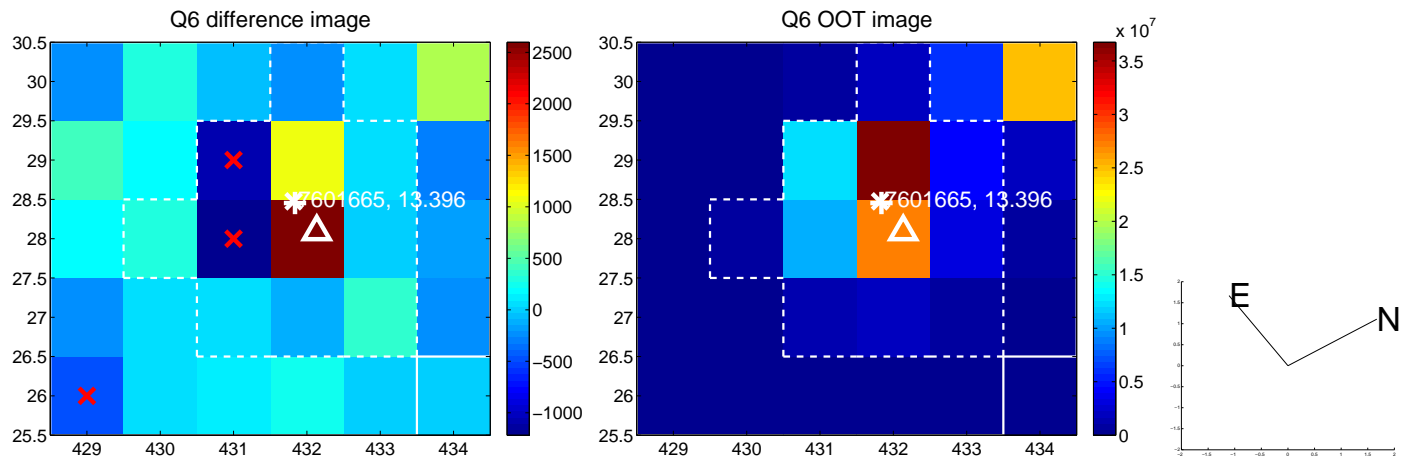
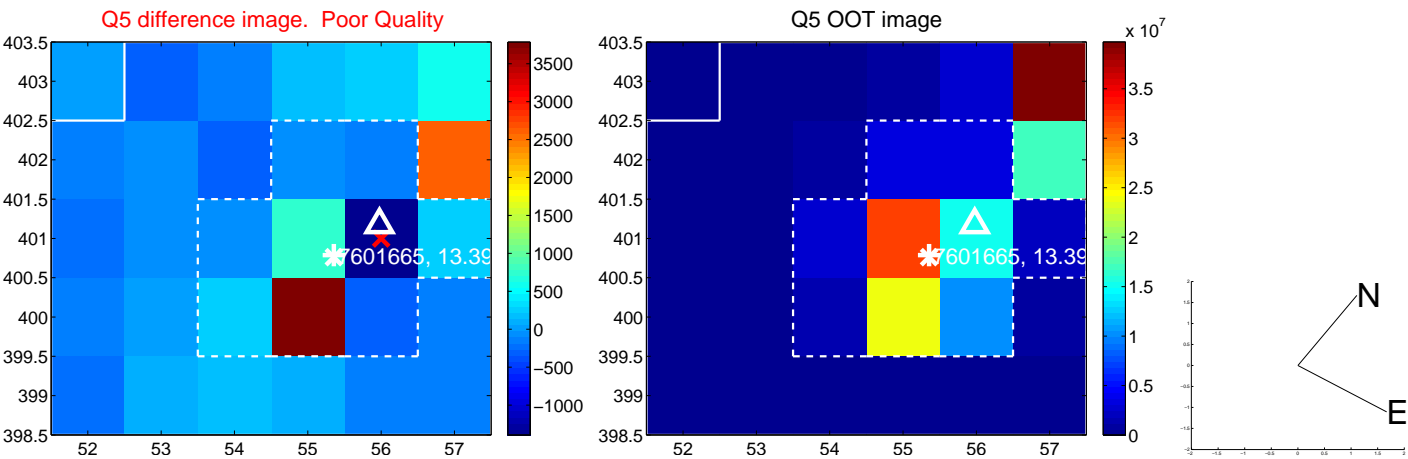


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

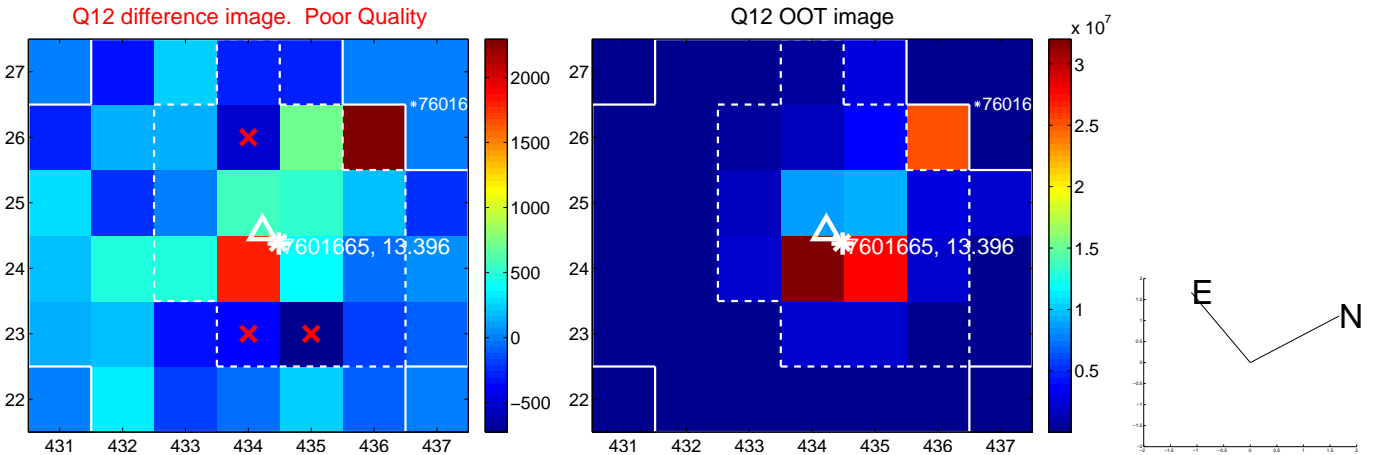
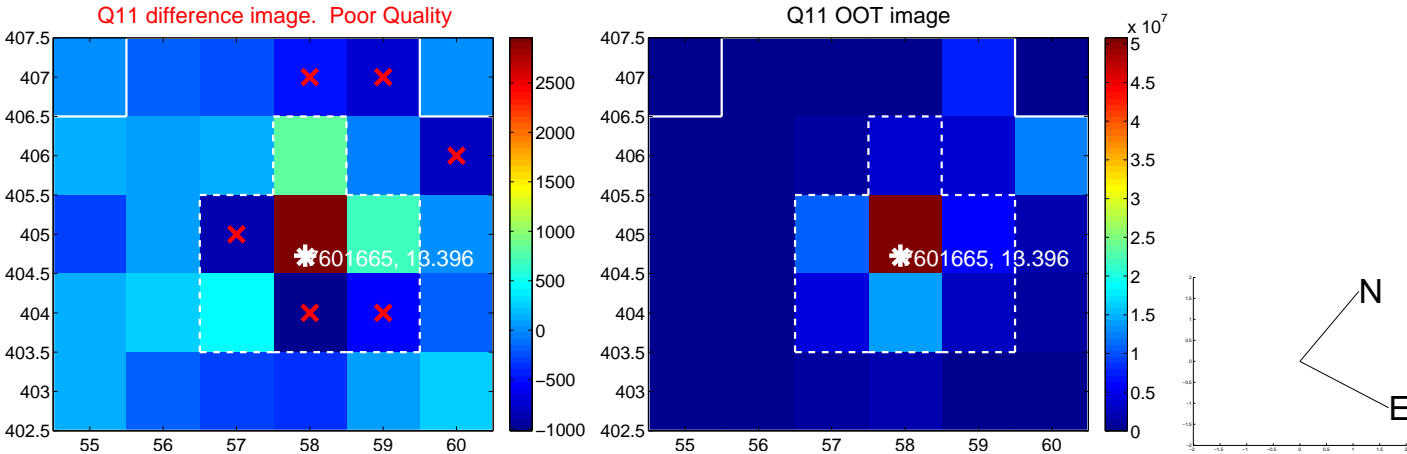
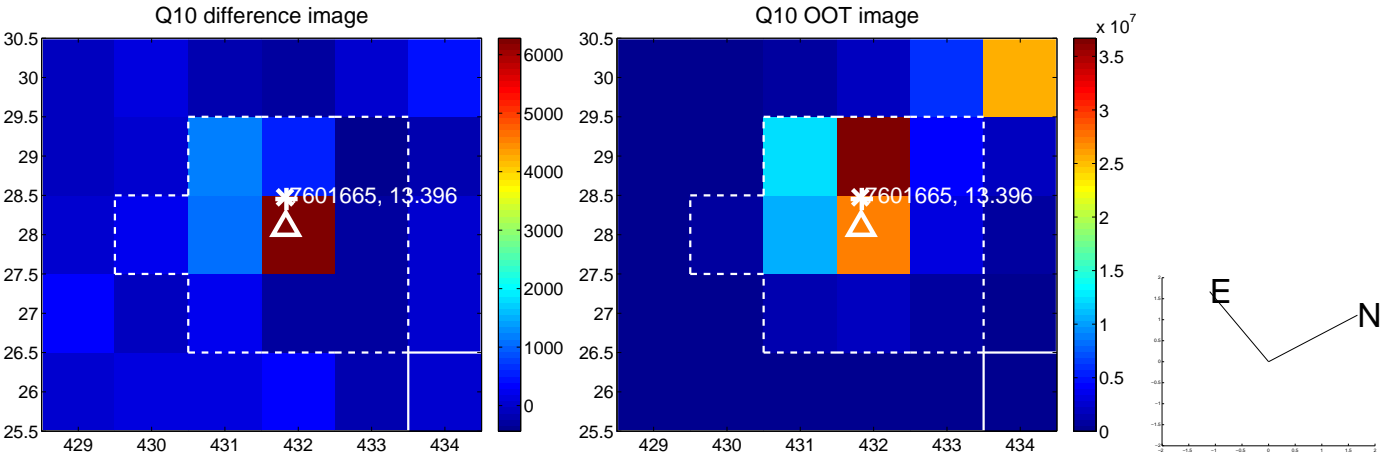
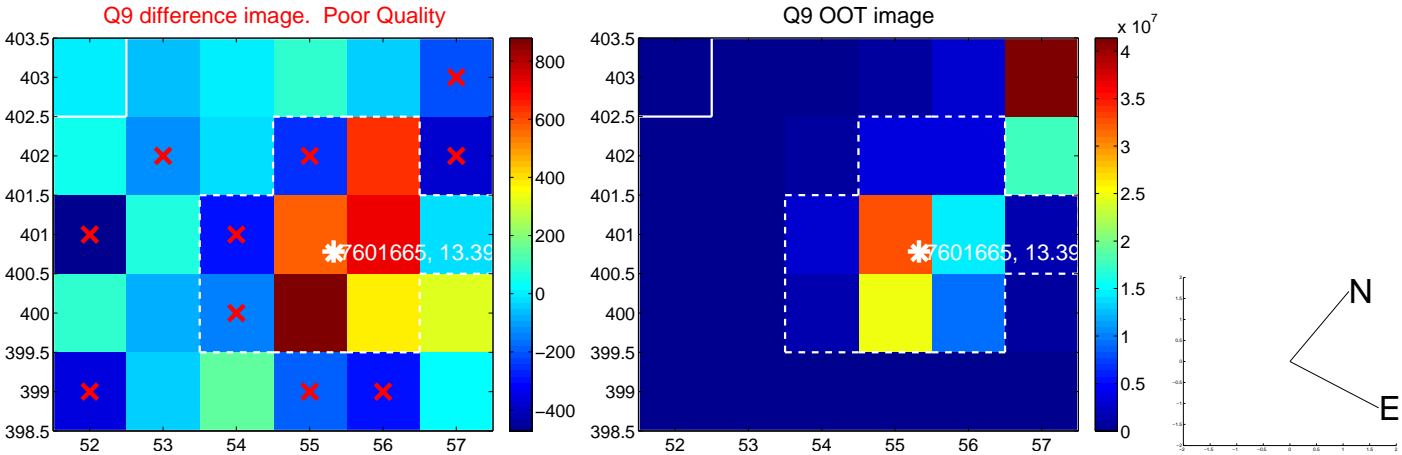
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



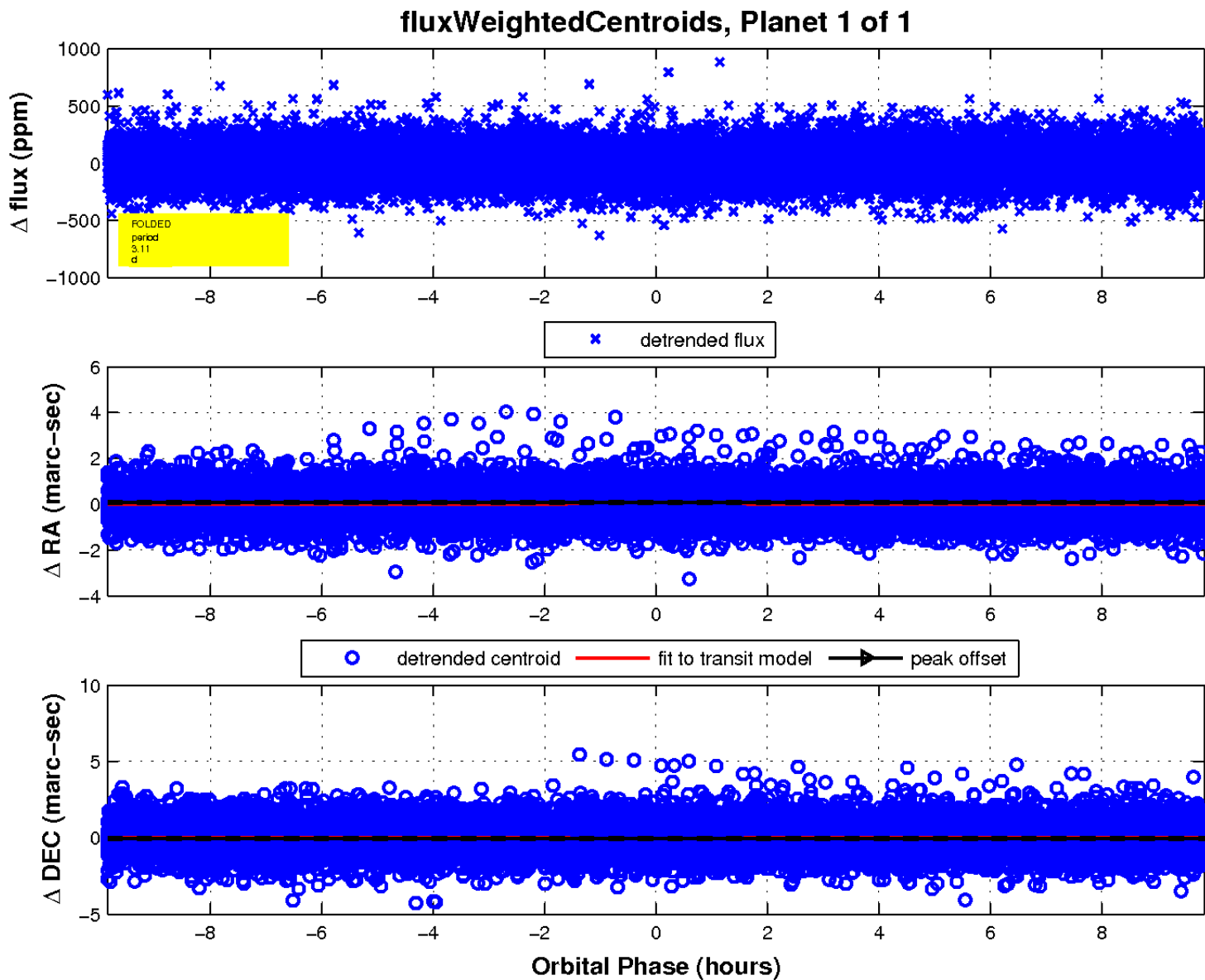
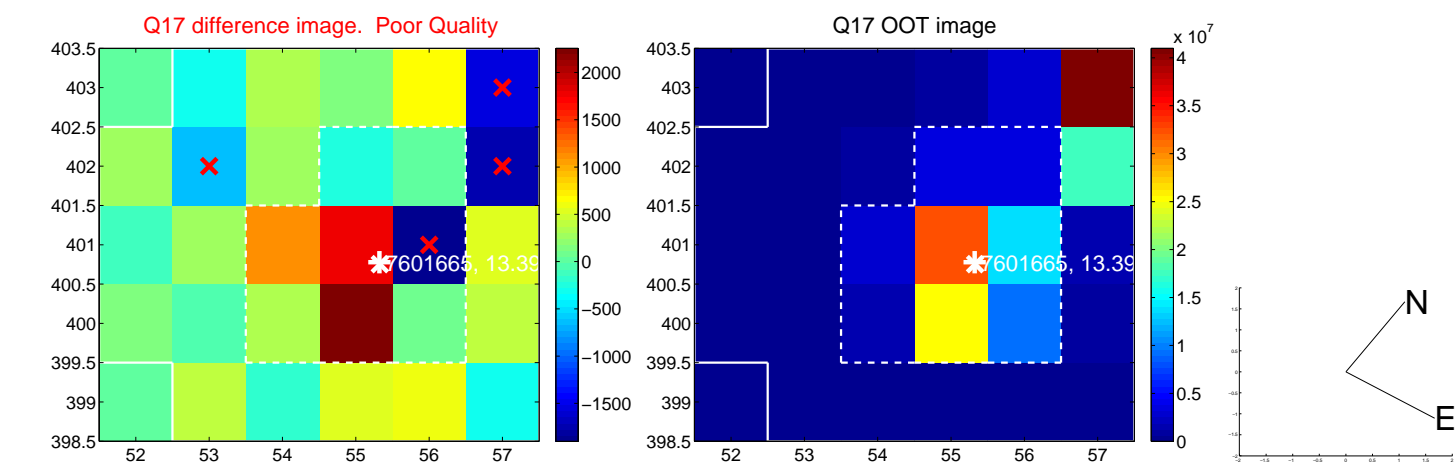
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

