

KIC 007207672

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})
007207672-01	OBS	No	3.329849	133.675652	79.3	14.766	9.0	8.7	2.26	7675	2.07	5545.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007207672-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

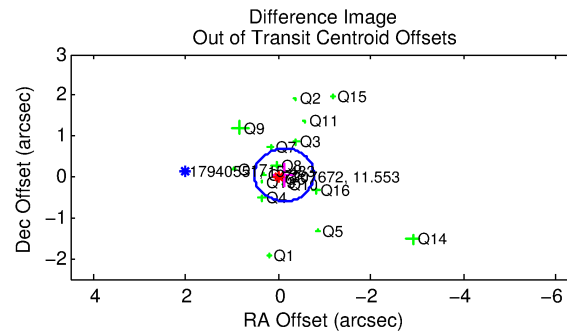
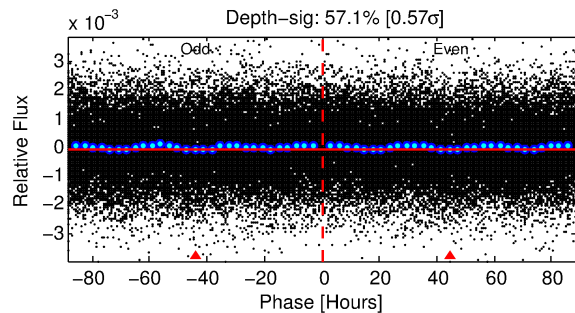
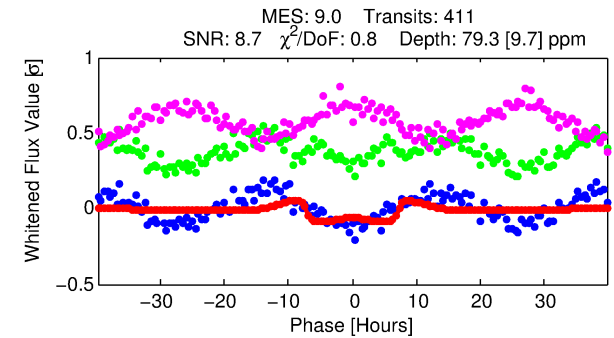
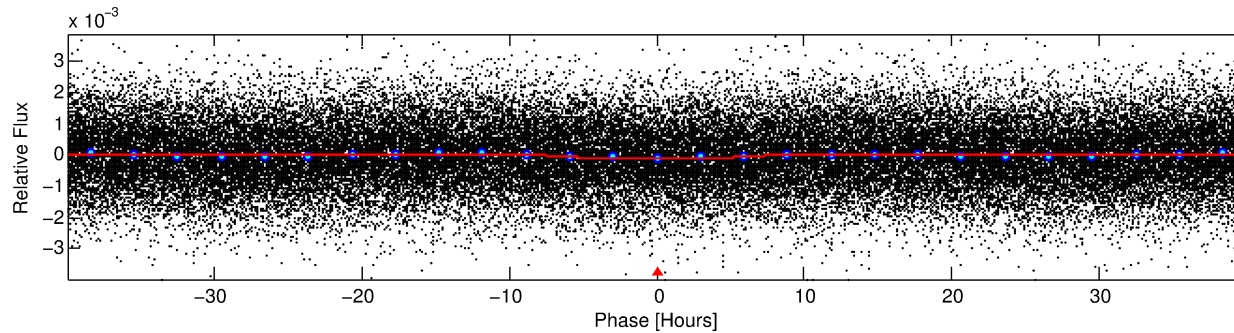
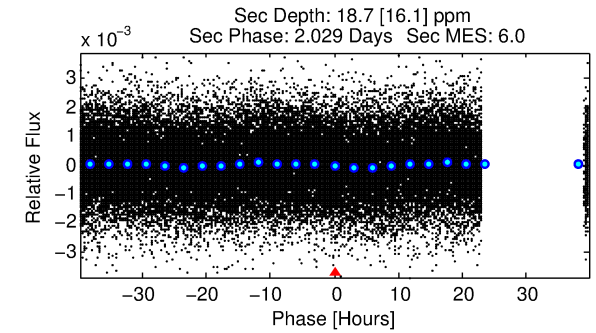
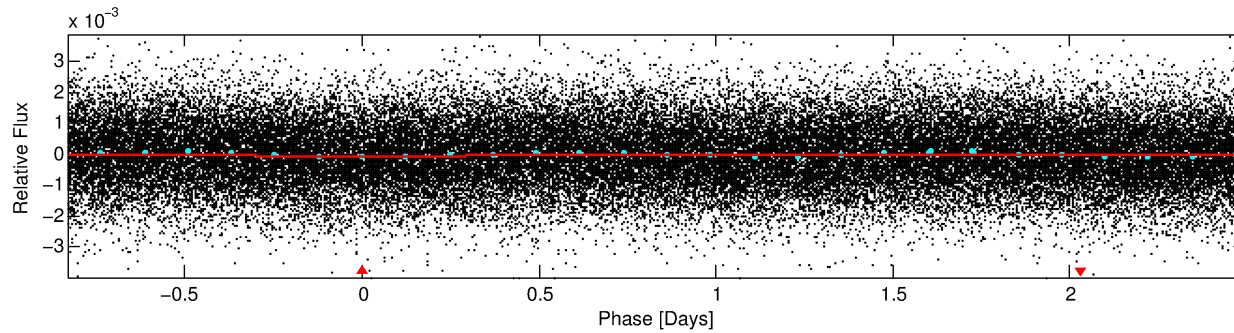
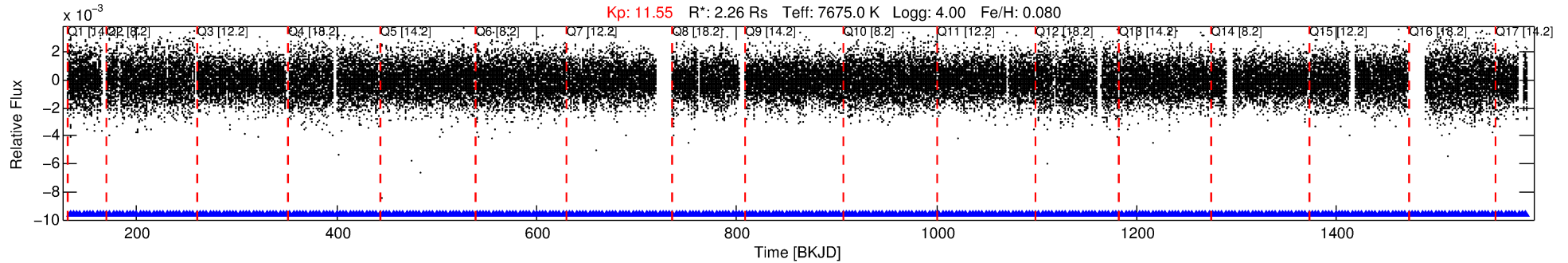
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007207672-01

No Significant Match Found

DV One-Page Summary

KIC: 7207672 Candidate: 1 of 1 Period: 3.330 d



DV Fit Results:

Period = 3.32985 [0.00006] d
Epoch = 133.6757 [0.0144] BKJD
Rp/R* = 0.0084 [0.0066]
a/R* = 1.74 [5.60]
b = 0.39 [10.42]
Seff = 5545.23 [2110.92]
Teff = 2200 [209] K
Rp = 2.07 [1.73] Re
a = 0.0535 [0.0125] AU
Ag = 6.88 [12.56] [0.47σ]
Teffp = 5510 [2481] K [1.33σ]

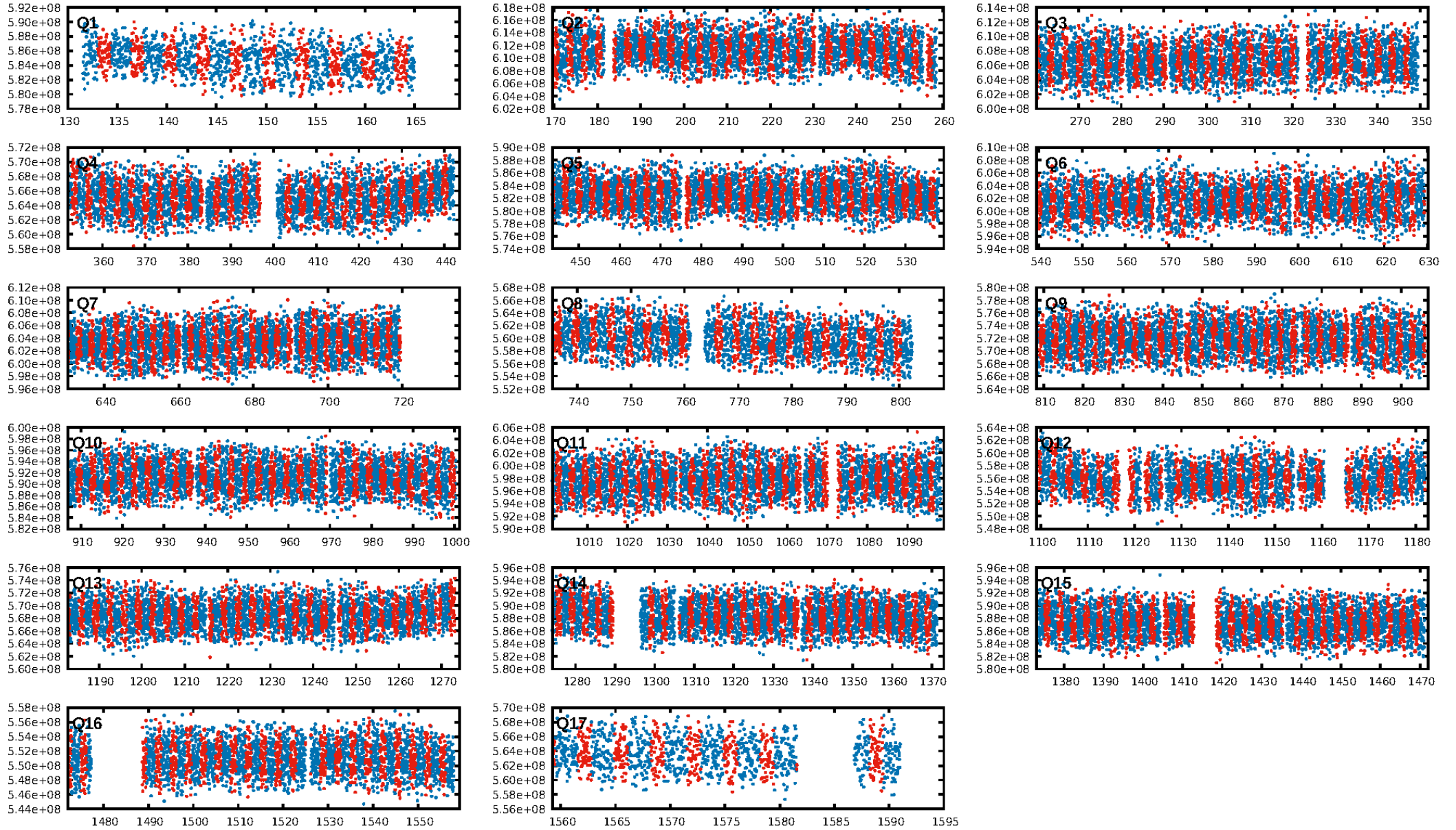
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.30e-18
RollingBand-fgt: 1.00 [394/394]
GhostDiagnostic-chr: 2.132
Centroid-sig: 48.7%
Centroid-so: 0.220 arcsec [1.69σ]
OotOffset-rm: 0.133 arcsec [0.62σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.118 arcsec [0.53σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 1.00 [17/17]

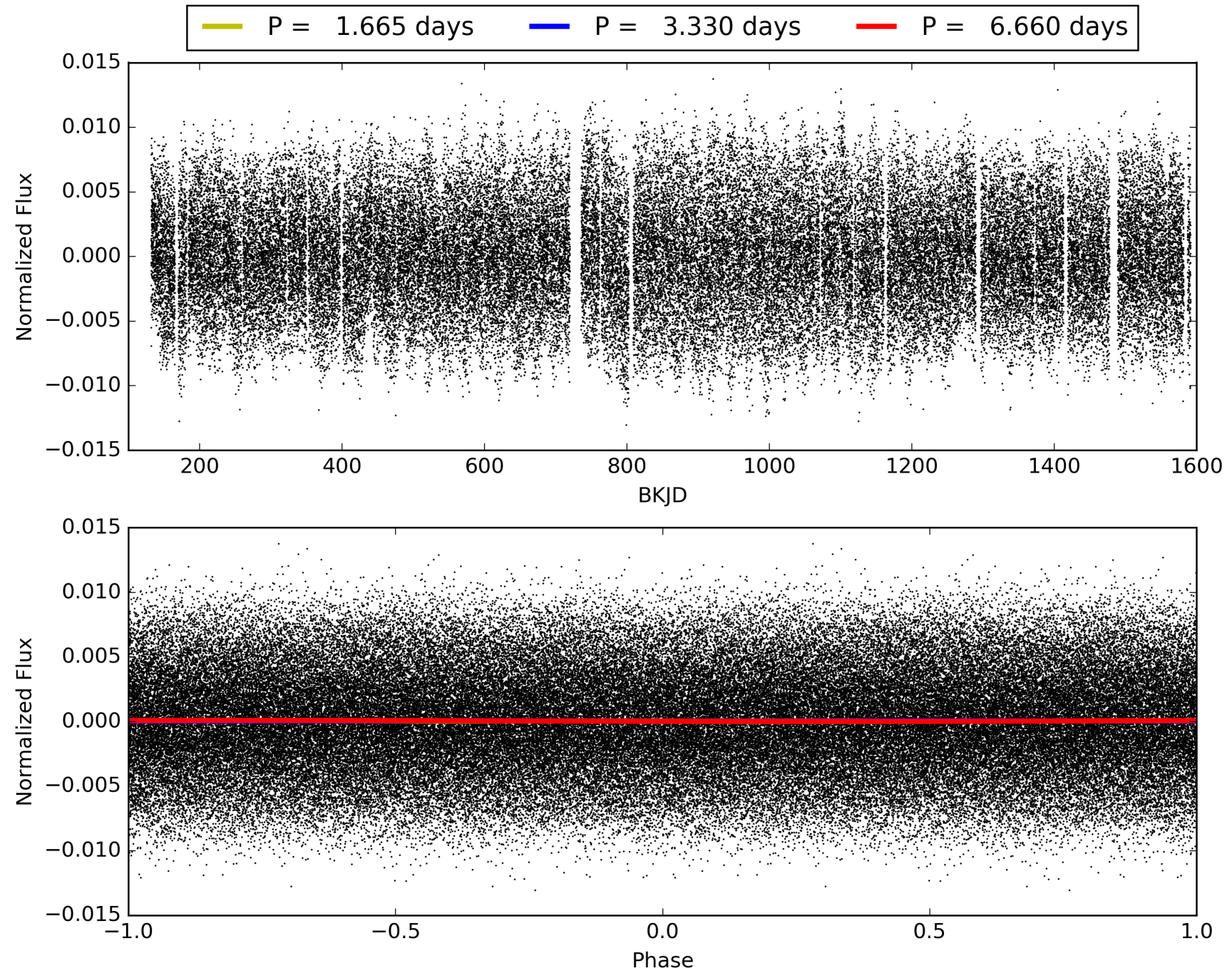
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:00:26 Z

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

TCE 007207672-01, PDC Light Curves

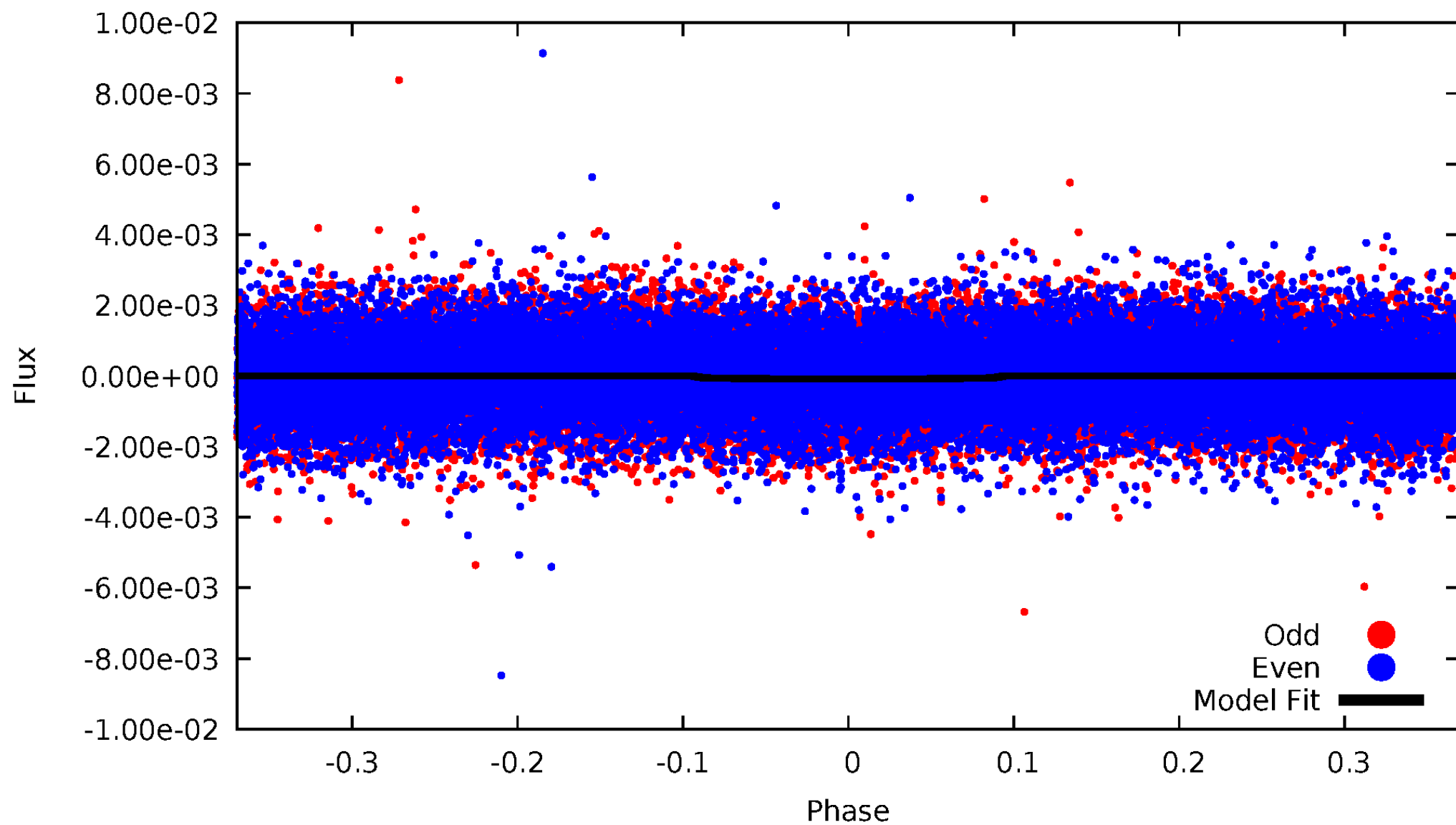


TCE 007207672-01



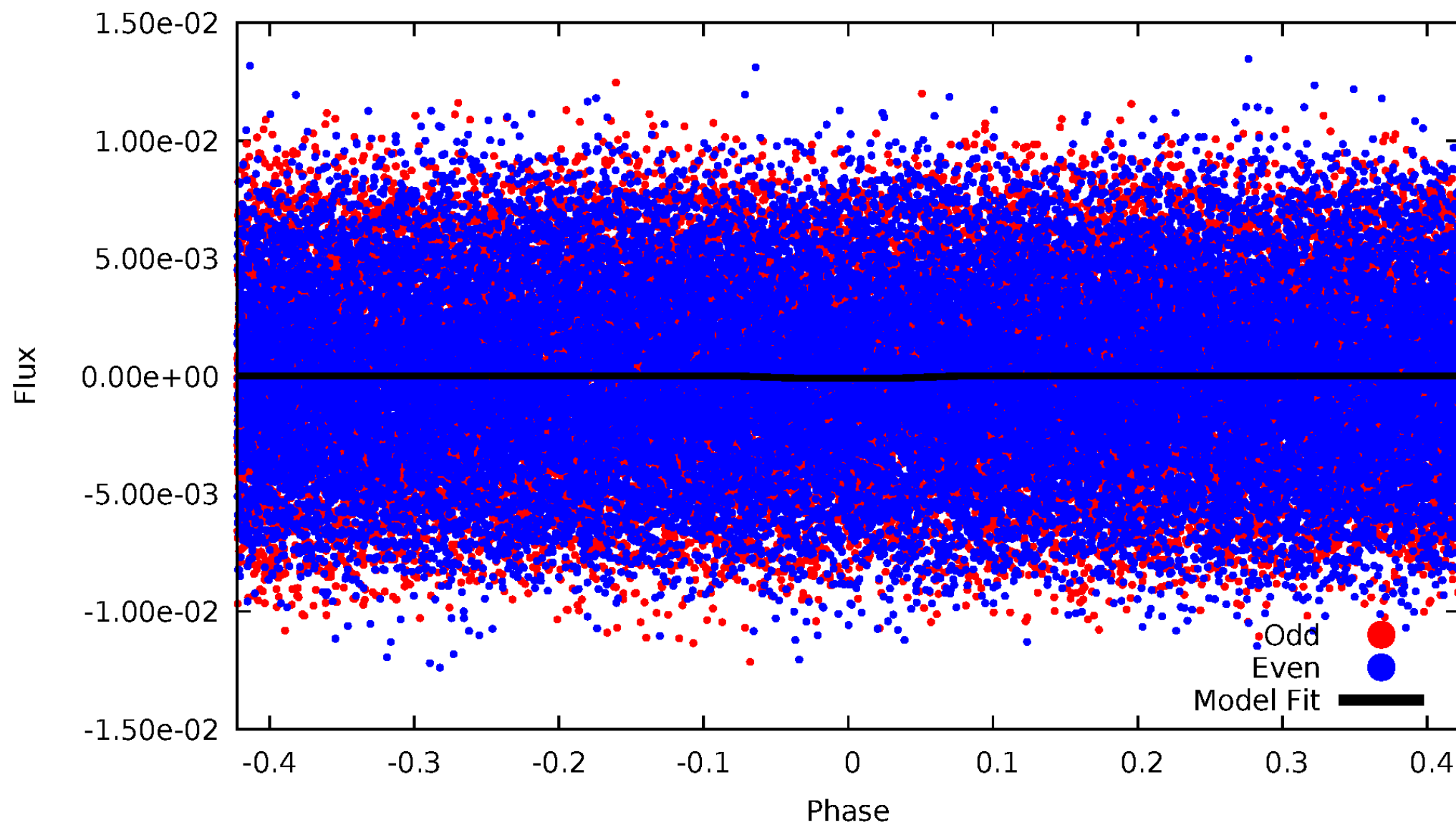
DV Odd/Even

TCE 007207672-01

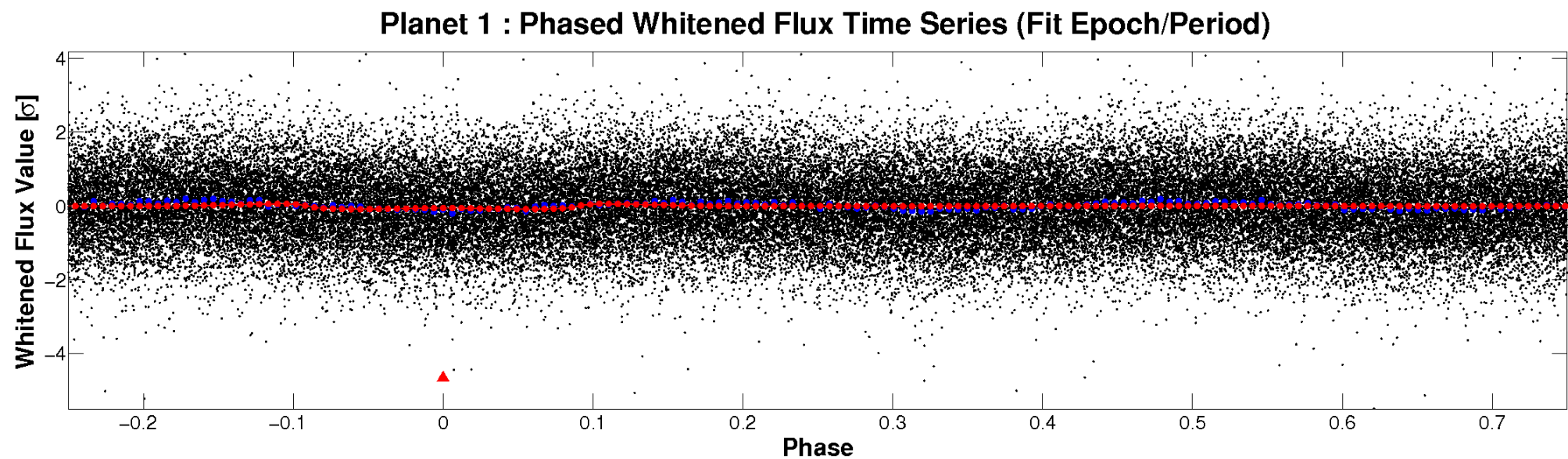
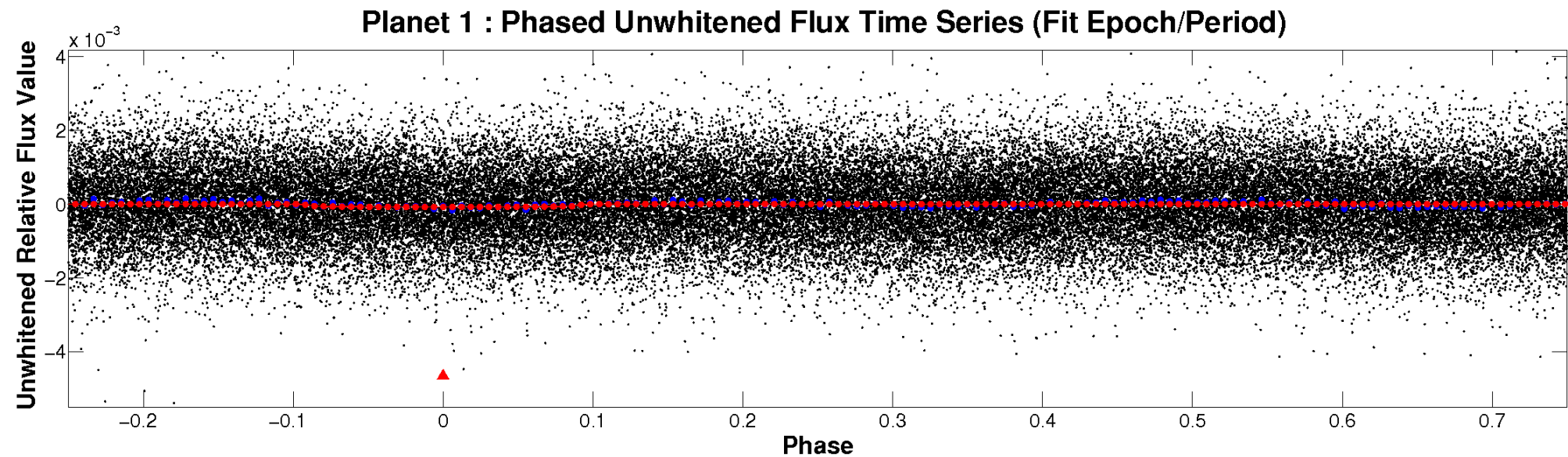


ALT Odd/Even

TCE 007207672-01

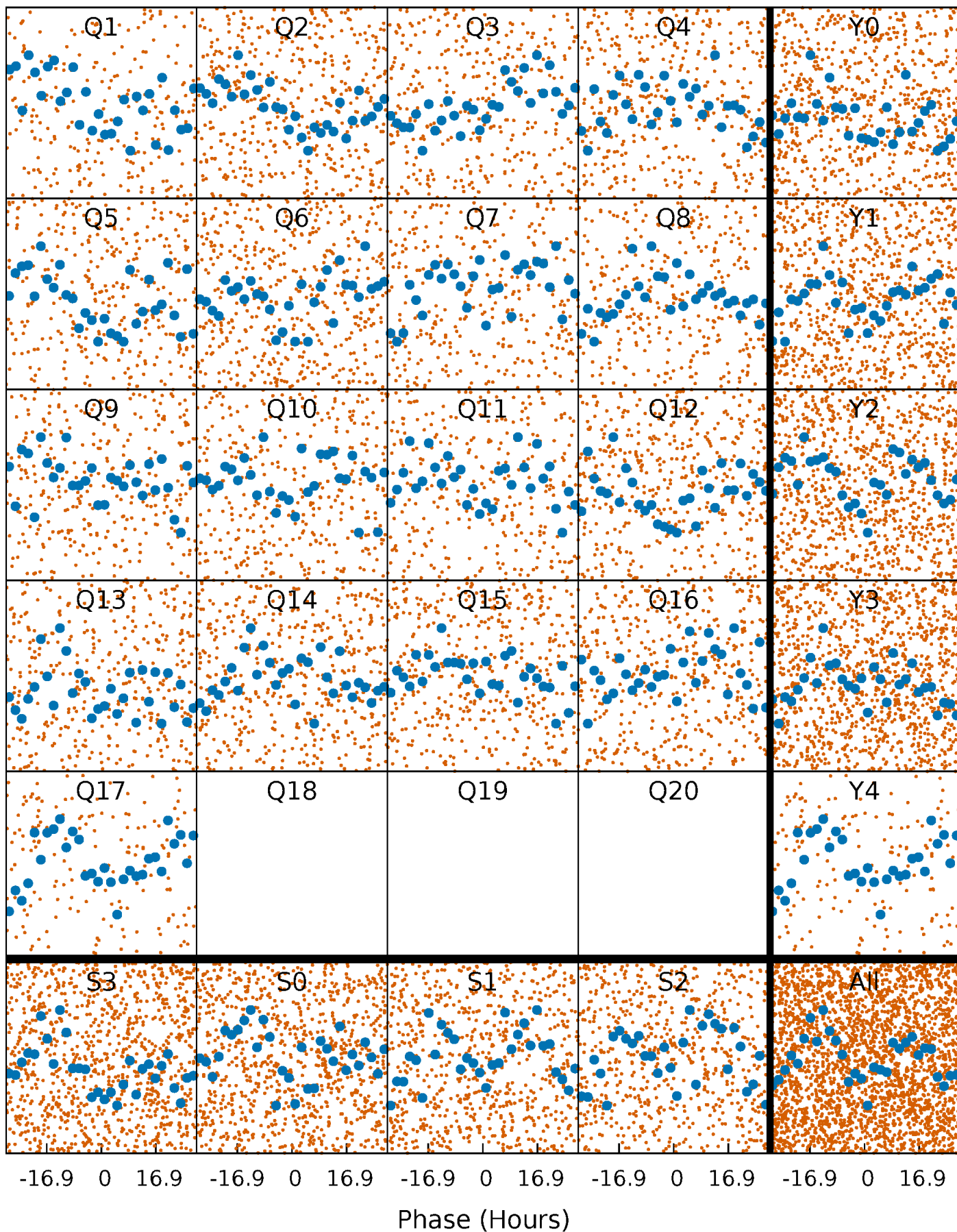


Non-Whitened Vs. Whitened Light Curve



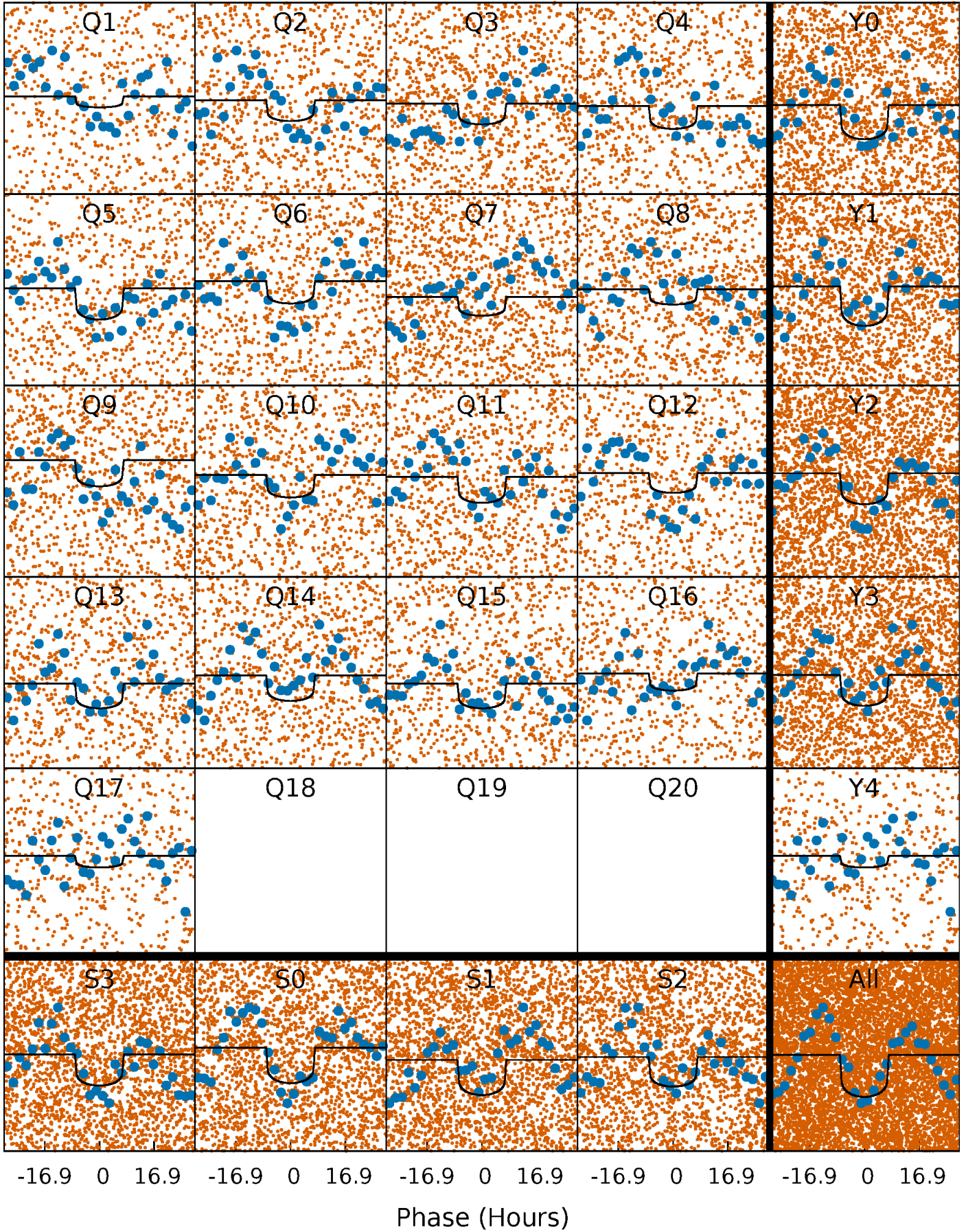
PDC Quarter-Phased Transit Curves

TCE 007207672-01 P= 3.329849 Days $T_0=133.675652$ (BKJD)



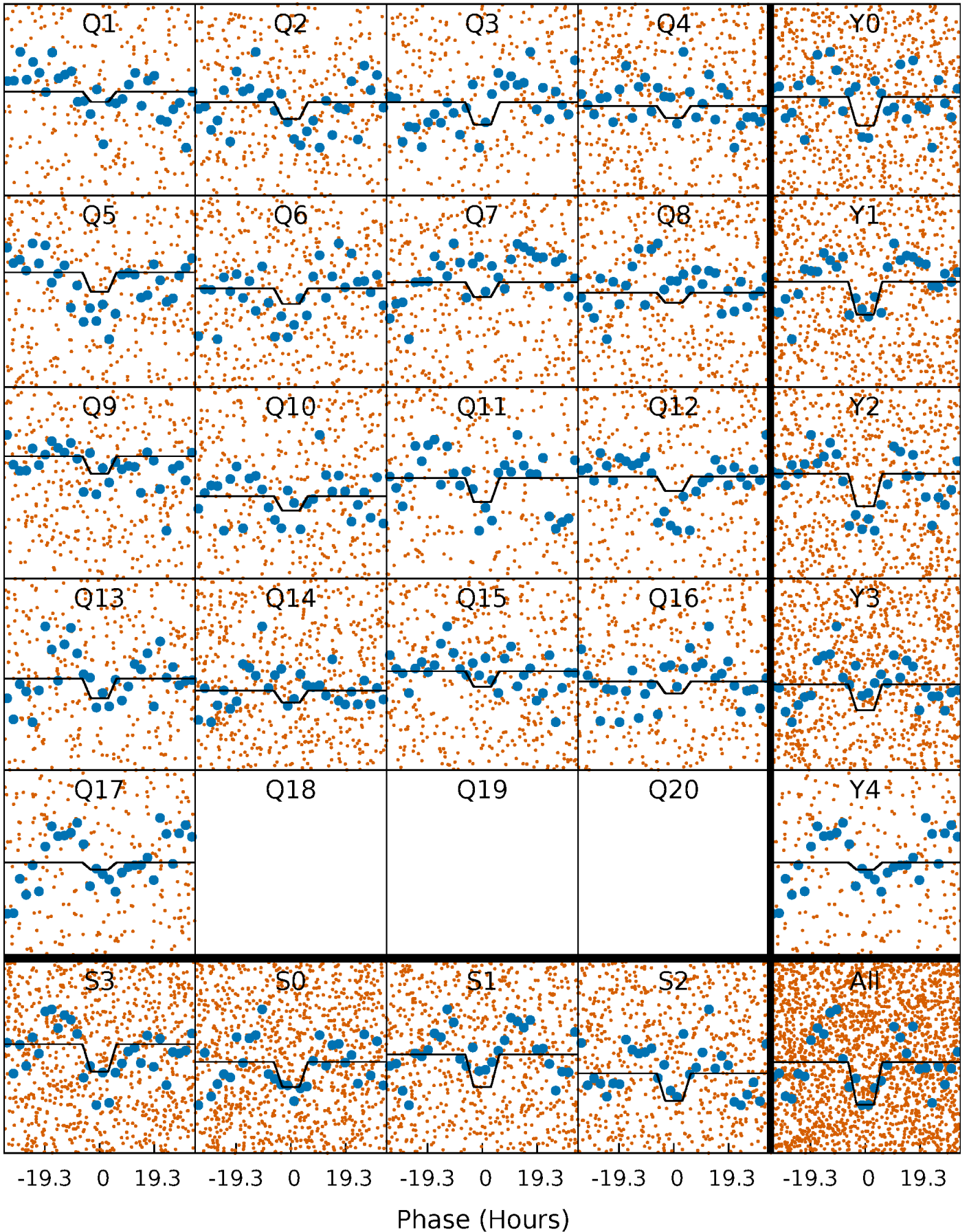
DV Quarter-Phased Transit Curves

TCE 007207672-01 P= 3.329849 Days $T_0=133.675652$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

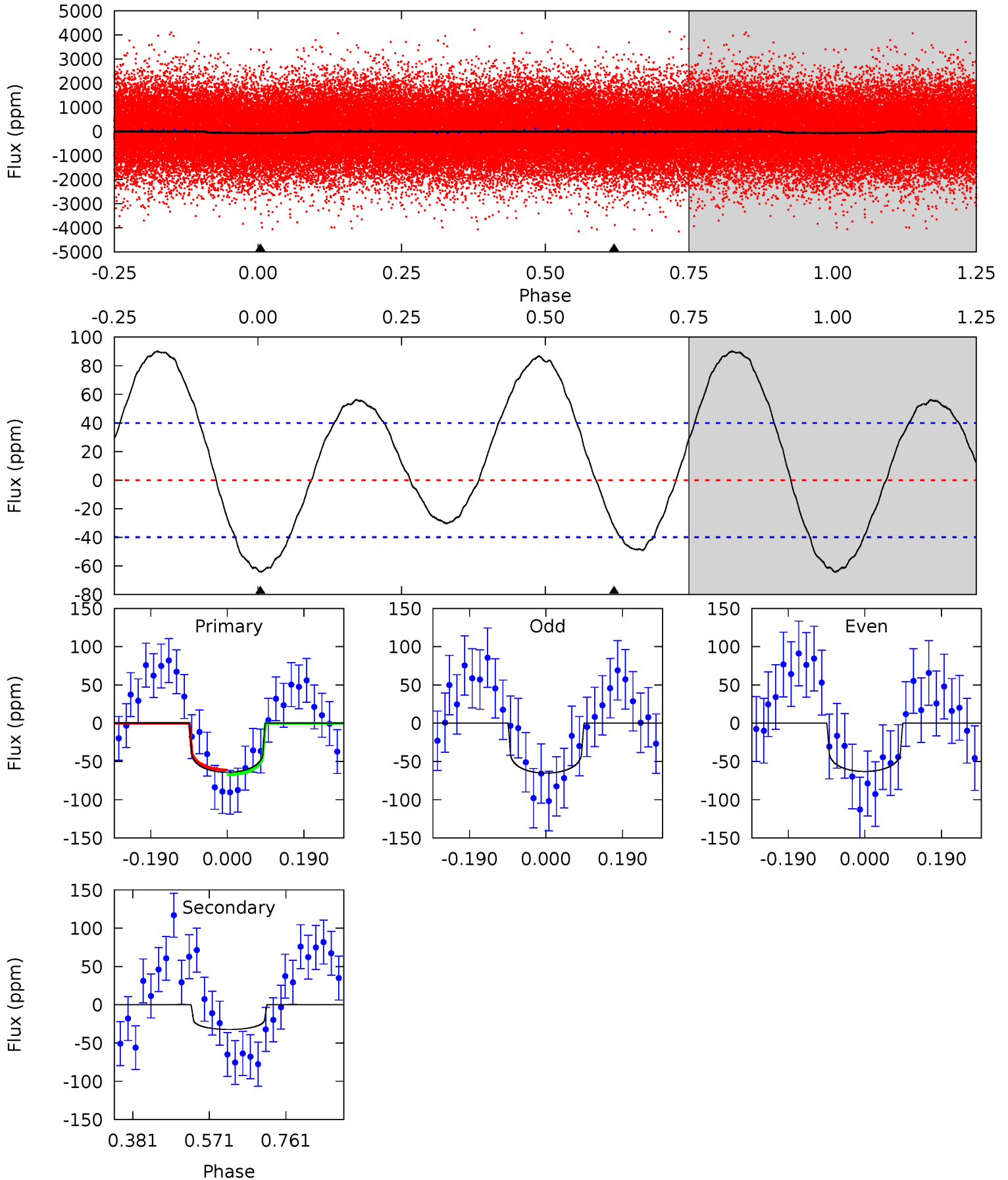
TCE 007207672-01 P= 3.329608 Days $T_0=133.747670$ (BKJD)



DV Model-Shift Uniqueness Test

007207672-01, P = 3.329849 Days, E = 130.345803 Days

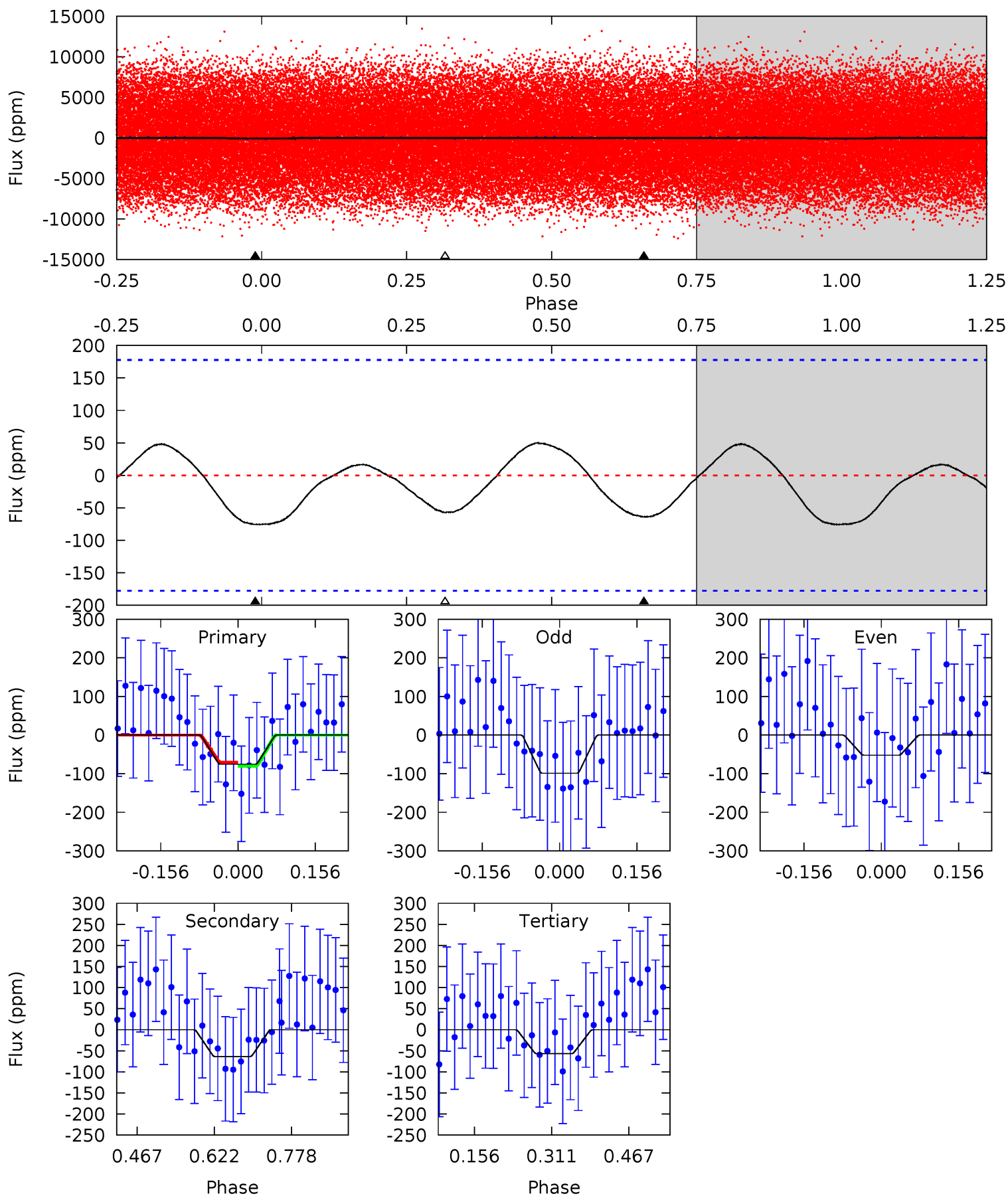
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.13	3.59	0	0	4.43	1.31	3.17	7.13	7.13	3.59	3.59	0.12	1.23	0.58	0.35



Alt Model-Shift Uniqueness Test

007207672-01, P = 3.329608 Days, E = 130.418062 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.90	1.61	1.43	0	4.47	1.42	0.88	0.47	1.90	0.17	1.61	0.58	0.96	0.40	0.13



Stellar Parameters For KIC 007207672

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7675^{+214}_{-322}	$3.995^{+0.187}_{-0.153}$	$0.080^{+0.150}_{-0.350}$	$2.259^{+0.514}_{-0.628}$	$1.840^{+0.129}_{-0.362}$	$0.225^{+0.264}_{-0.091}$
	+3%/-4%	+5%/-4%	+188%/-438%	+23%/-28%	+7%/-20%	+117%/-41%
Source	KIC0	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 007207672-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-32 ± 9	$2.20^{+1.46}_{-1.23}$	3069^{+199}_{-226}	5817^{+3877}_{-1240}	$9.895^{+44.717}_{-6.527}$
Alt.	-64 ± 40	$2.34^{+1.67}_{-1.39}$	3072^{+225}_{-234}	6503^{+5123}_{-1948}	15^{+78}_{-12}

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

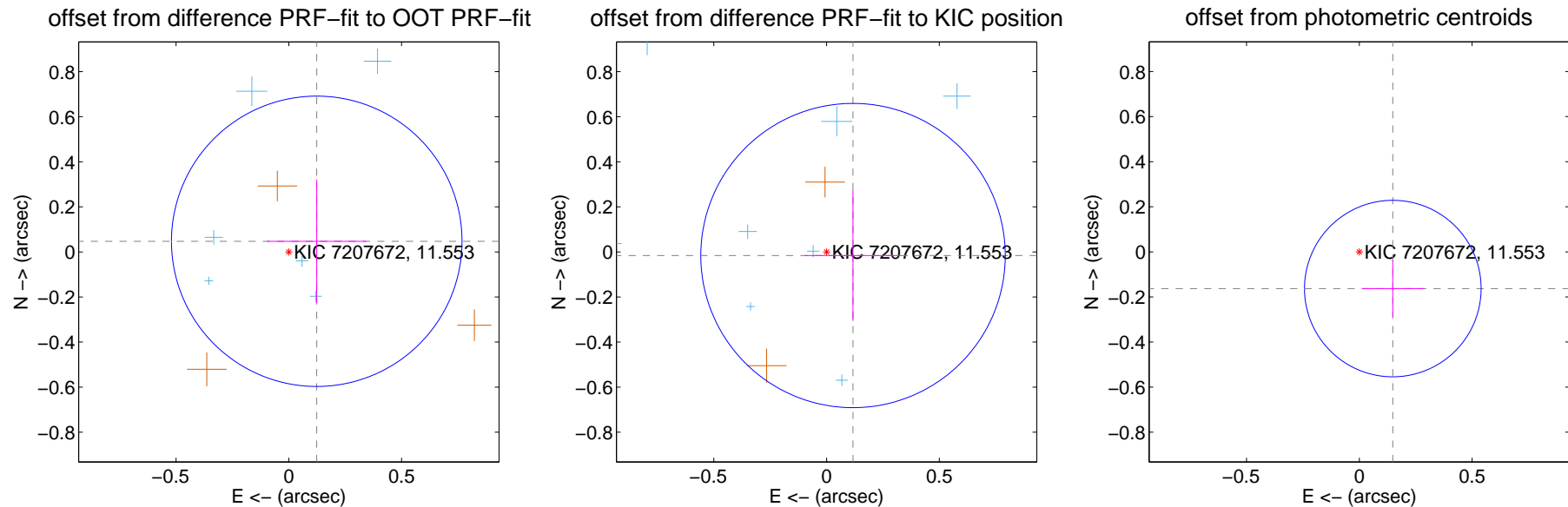
DV Centroid Data

Supplemental centroid analysis for 007207672-01. **Kepler magnitude: 11.55.** Transit SNR 8.68

There are 12 quarters with good PRF difference image offsets

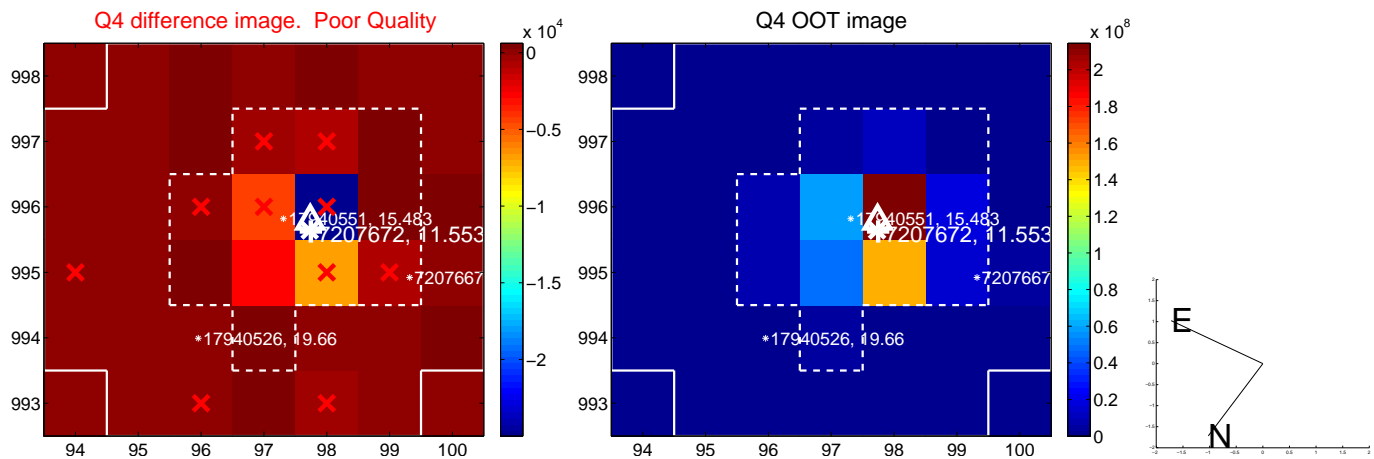
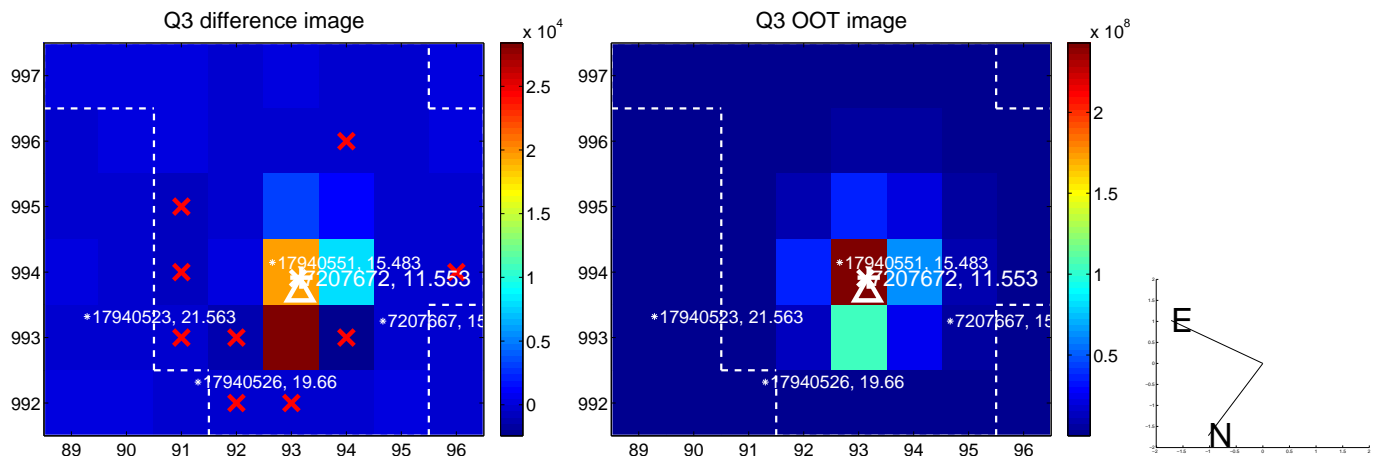
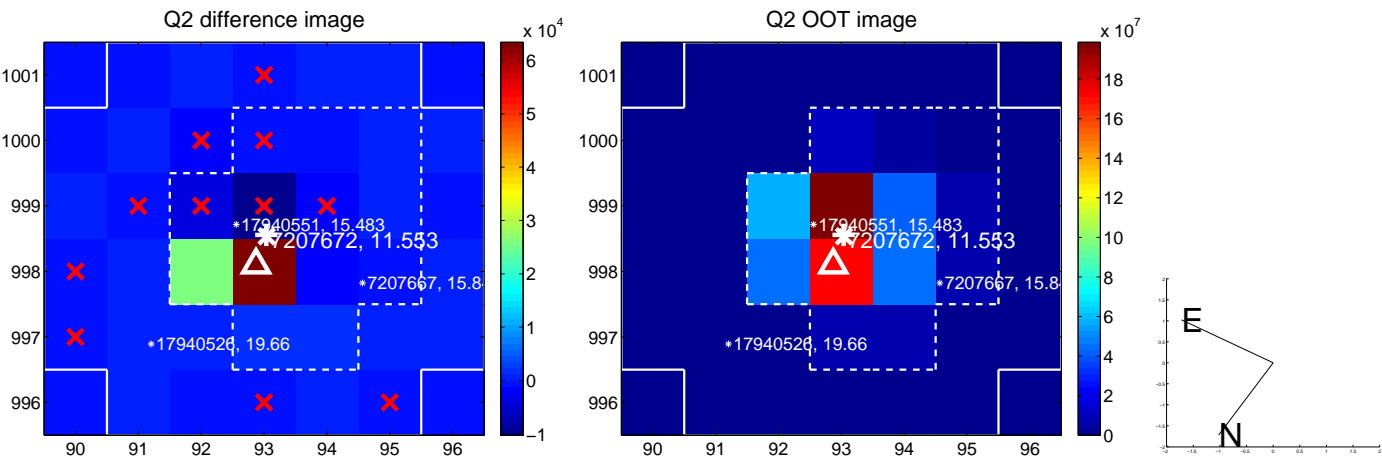
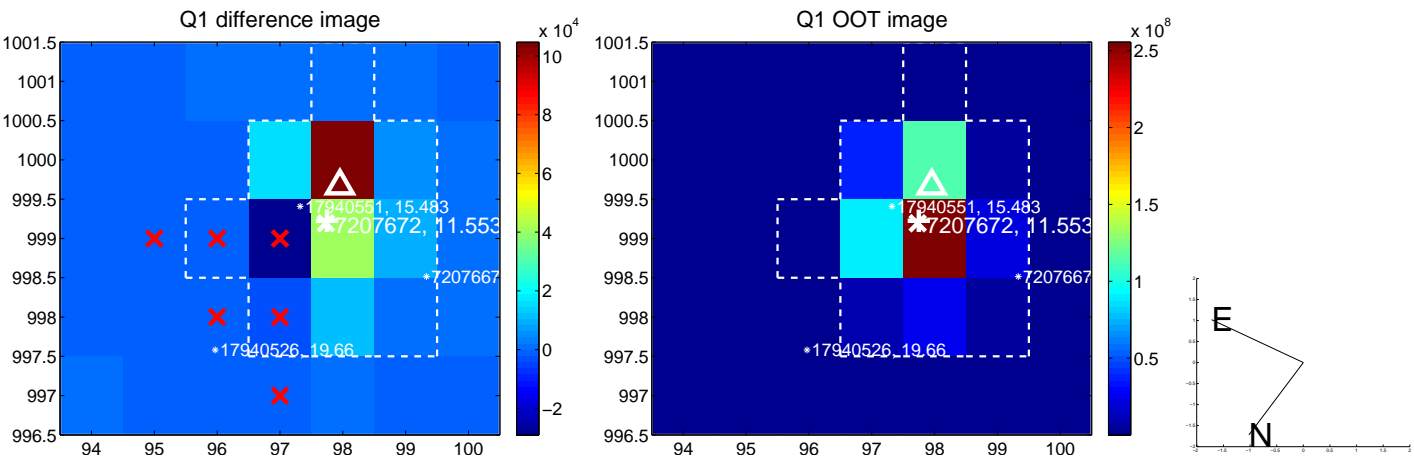
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.133 ± 0.215	0.62	-0.124 ± 0.220	0.047 ± 0.274
PRF-fit source offset from KIC position	0.118 ± 0.225	0.53	-0.117 ± 0.215	-0.016 ± 0.290
photometric centroid source offset	0.22 ± 0.13	1.69	-0.15 ± 0.14	-0.16 ± 0.13

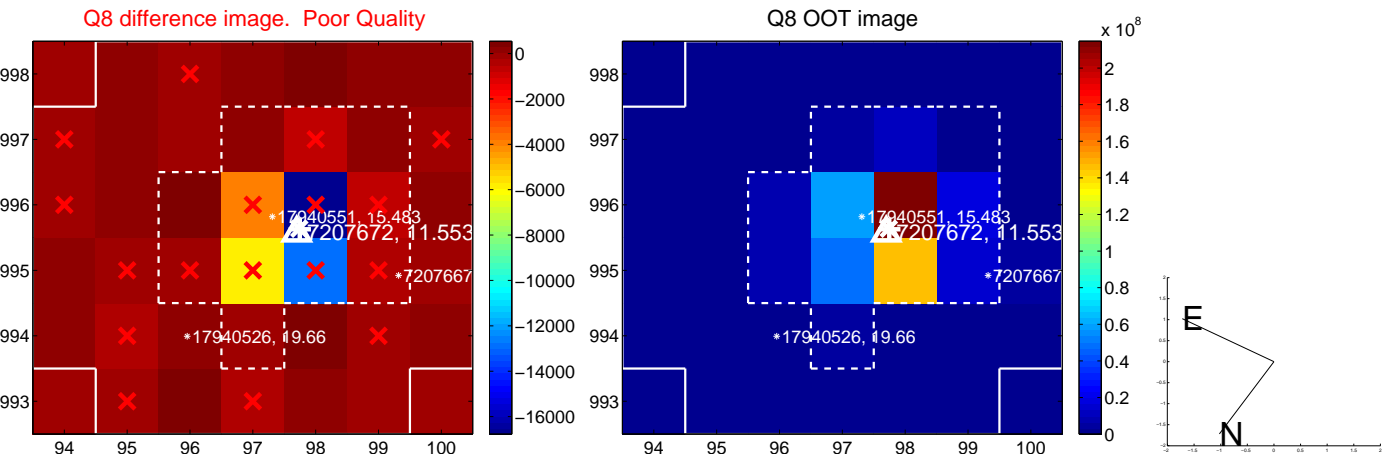
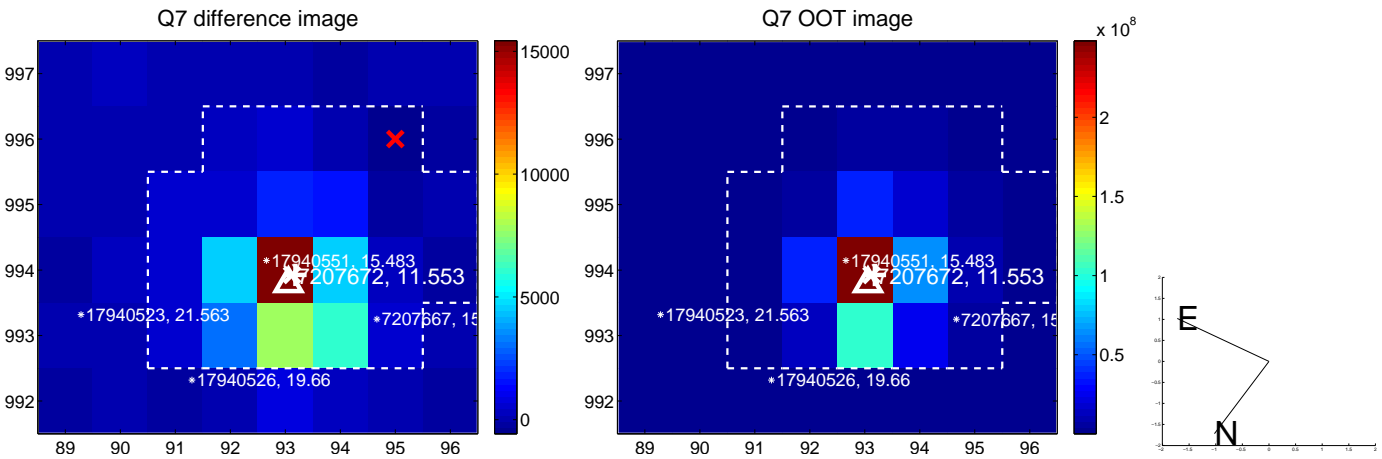
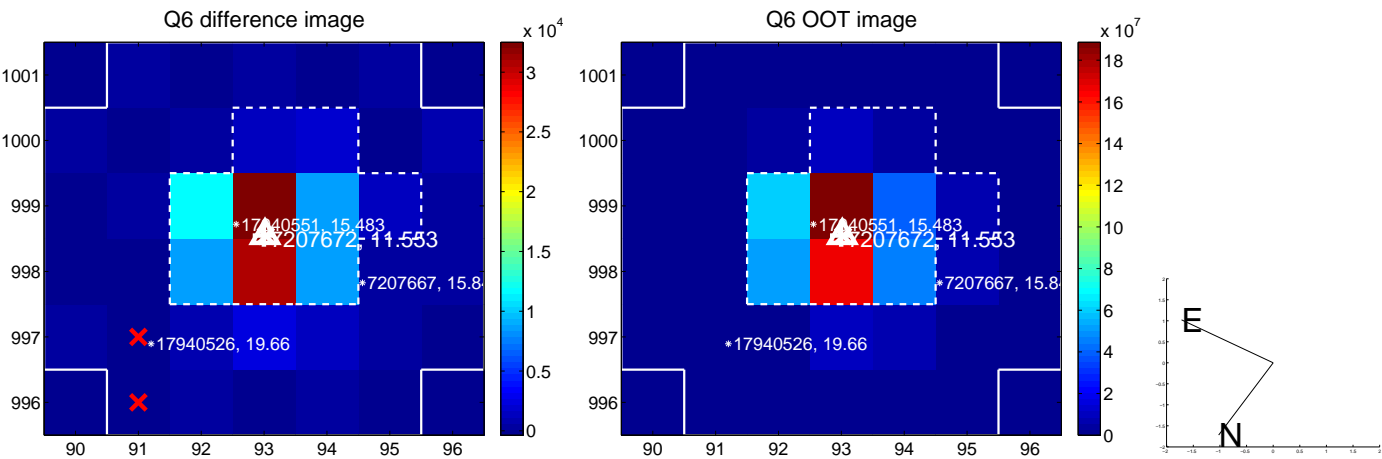
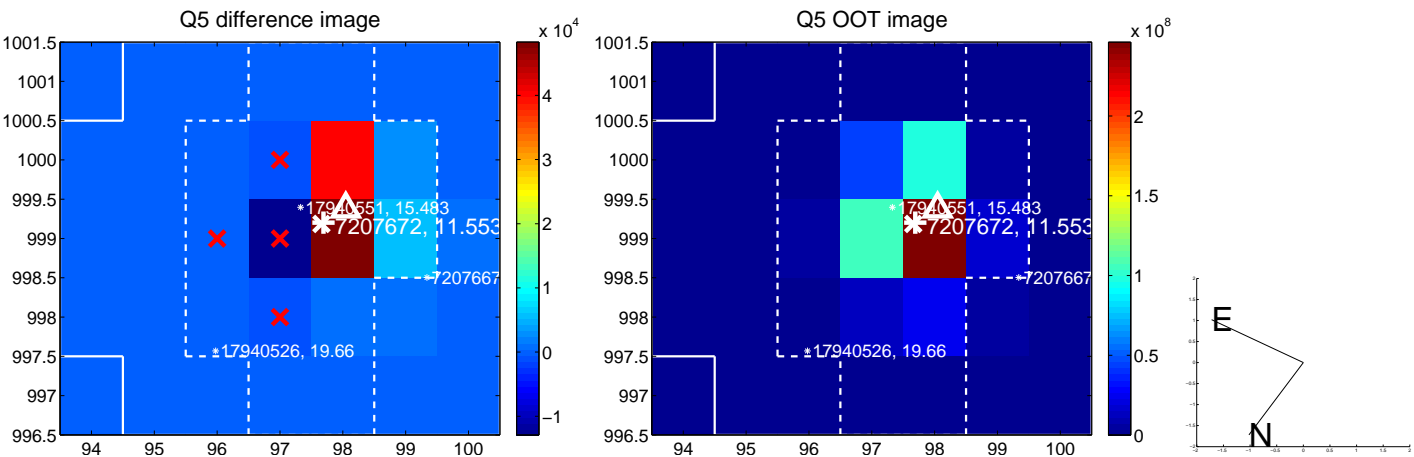


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

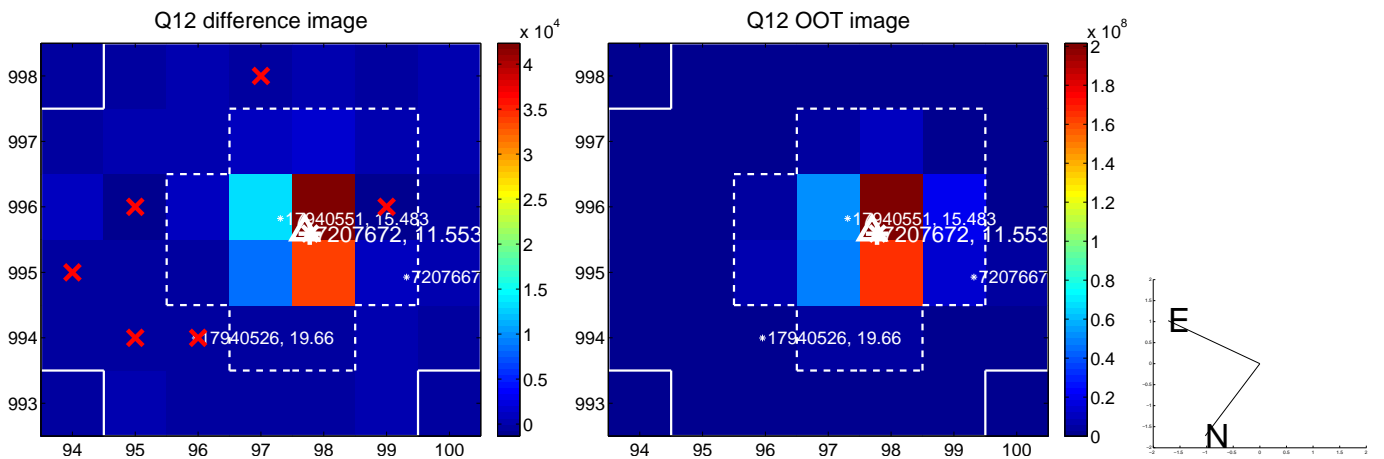
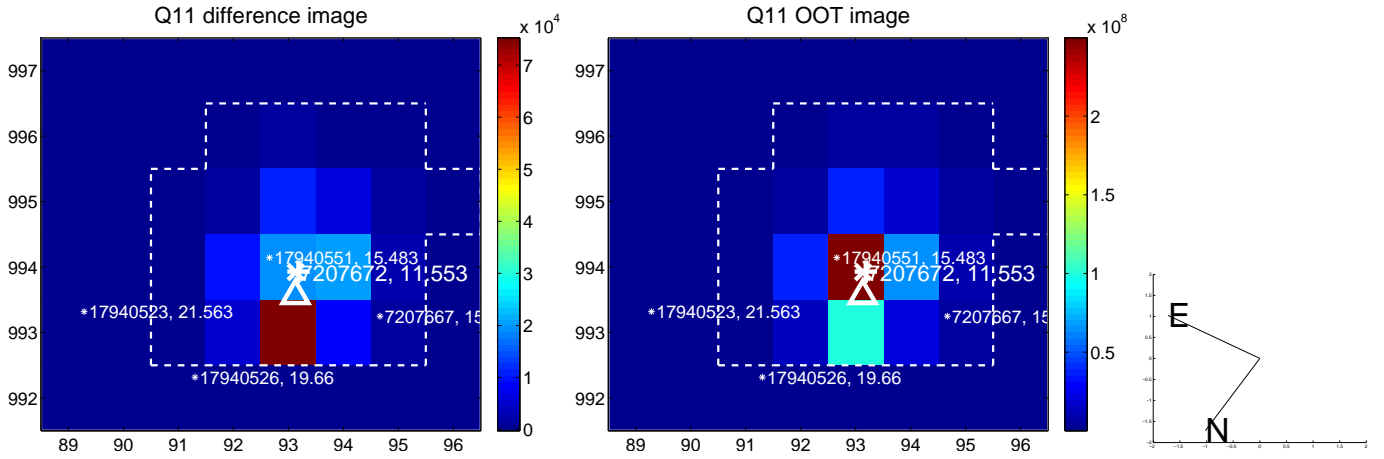
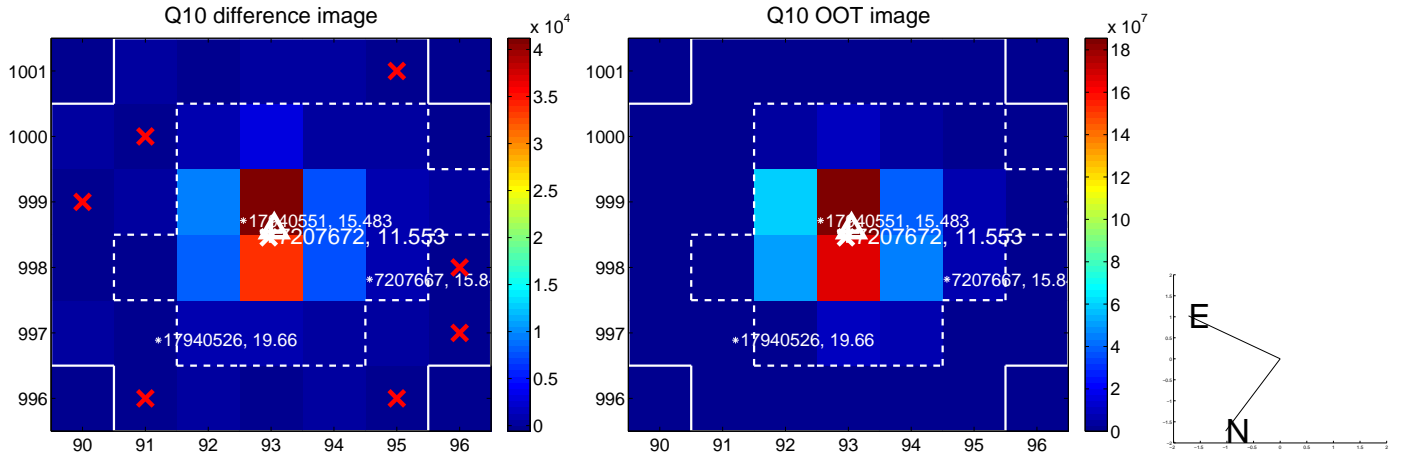
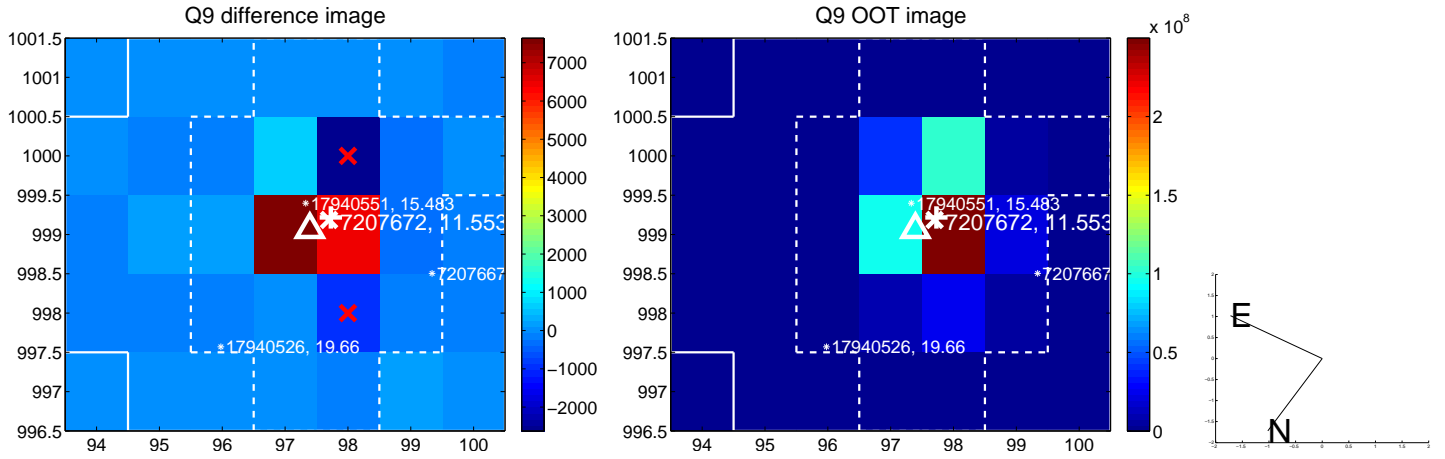
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



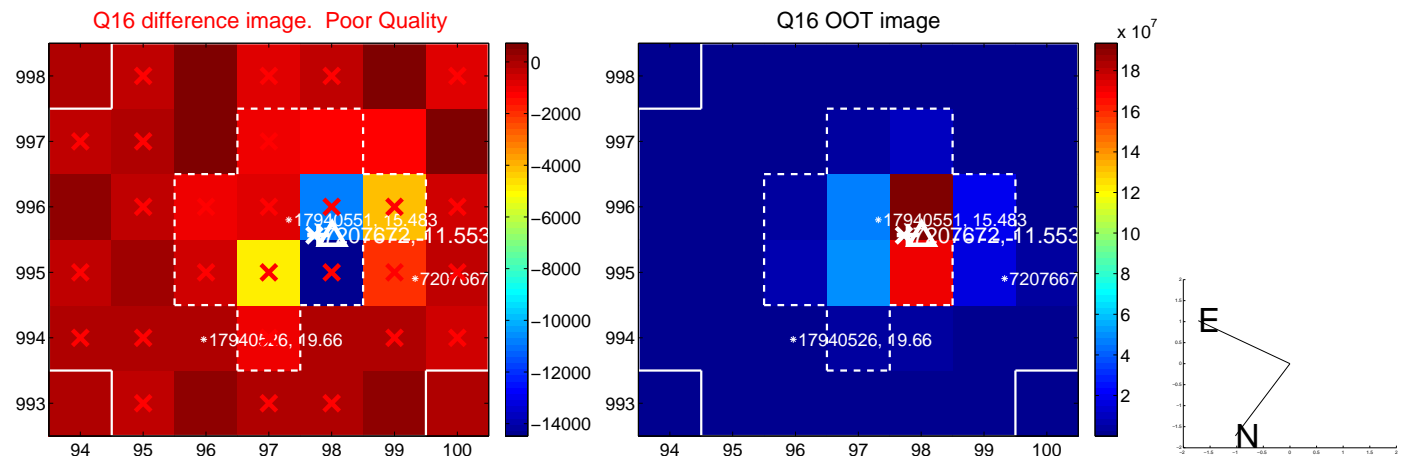
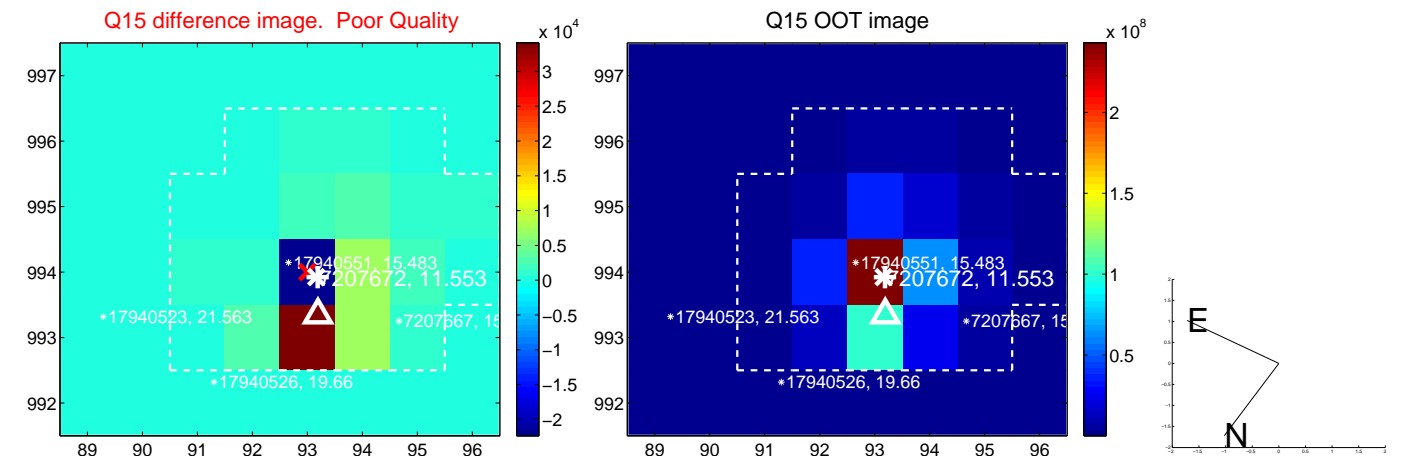
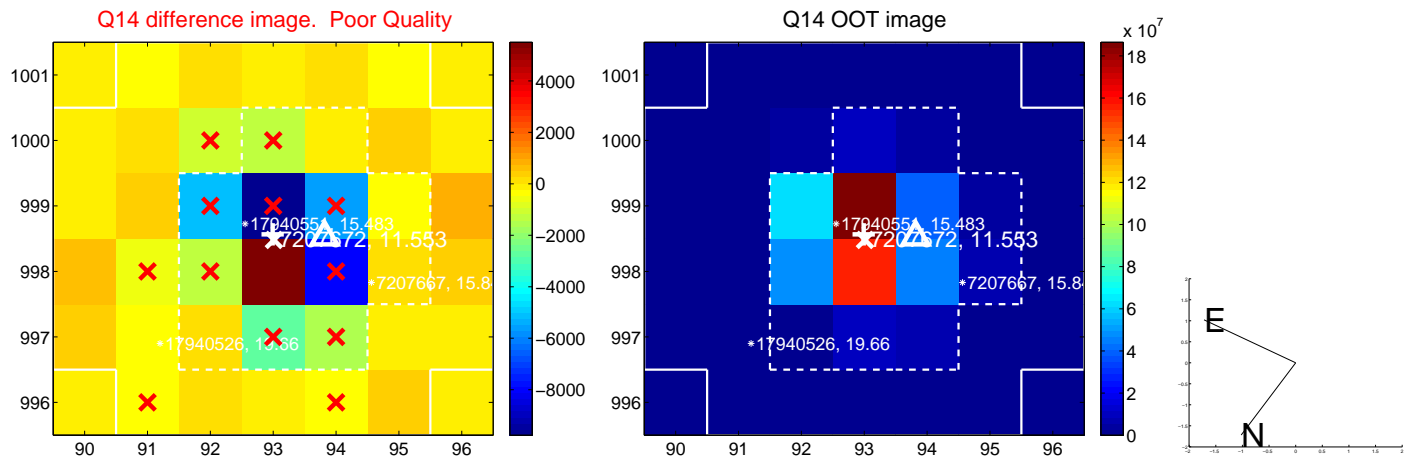
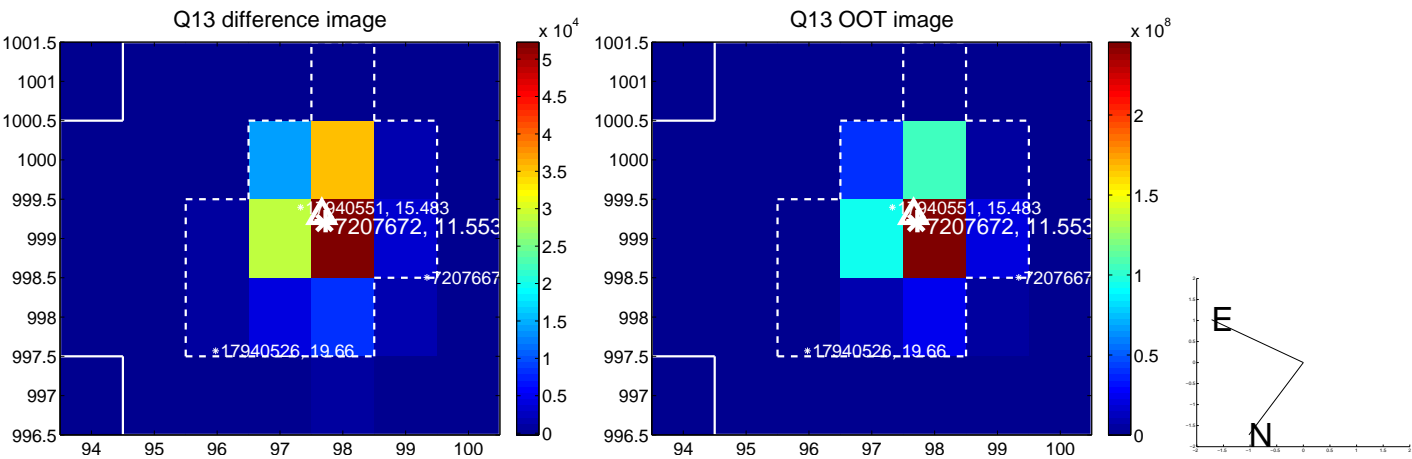
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



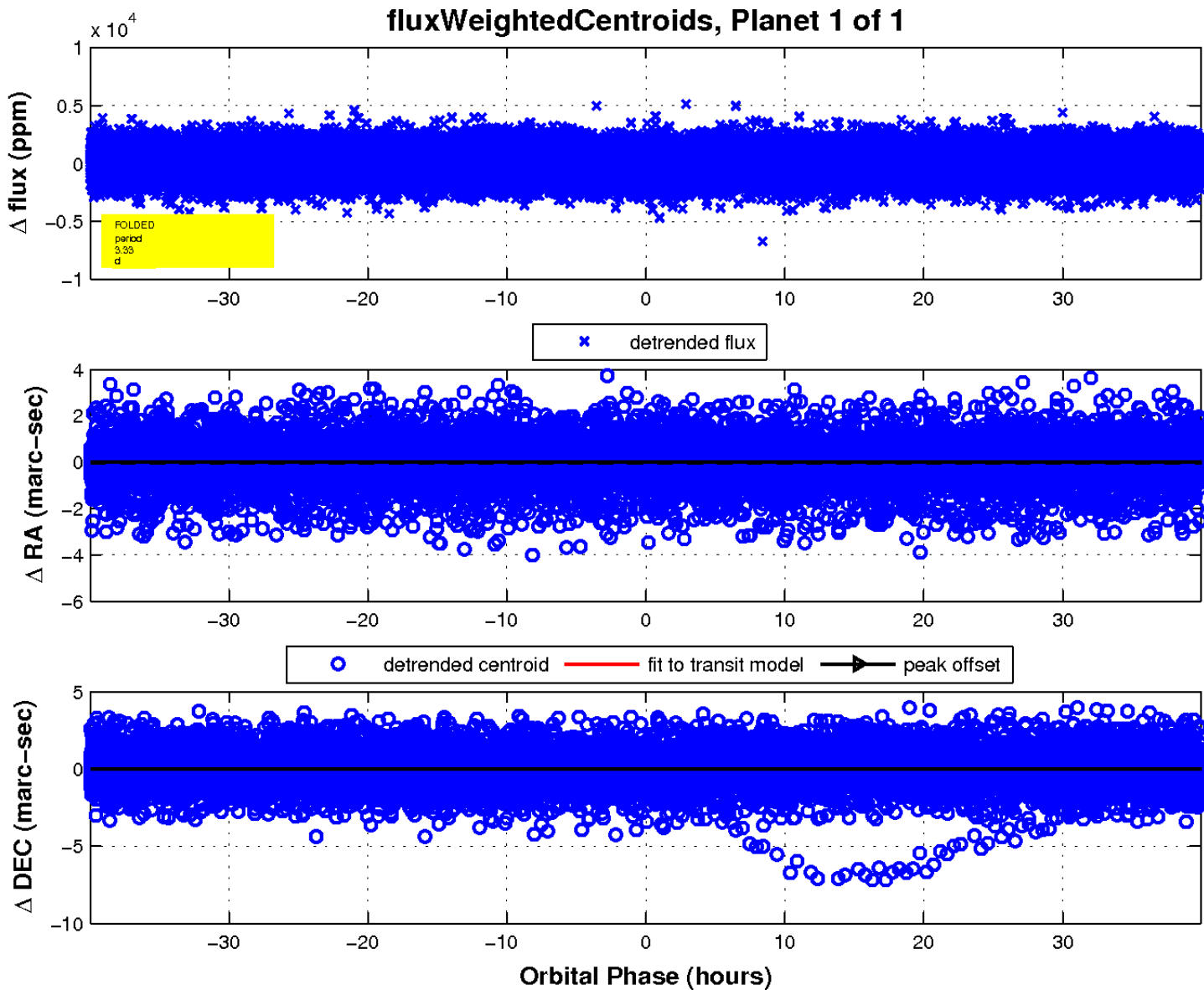
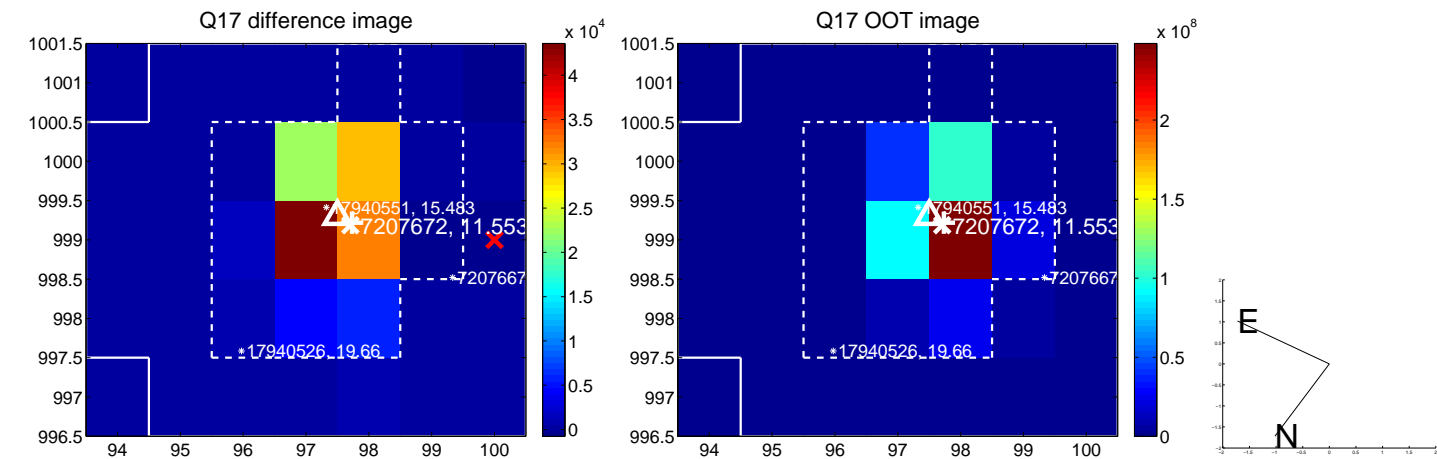
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

