

KIC 005480730

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})
005480730-01	OBS	No	2.968713	132.575928	127.6	9.497	7.5	8.0	3.40	7883	4.46	15116.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005480730-01	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.

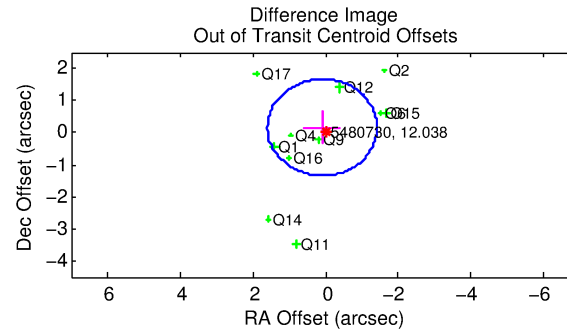
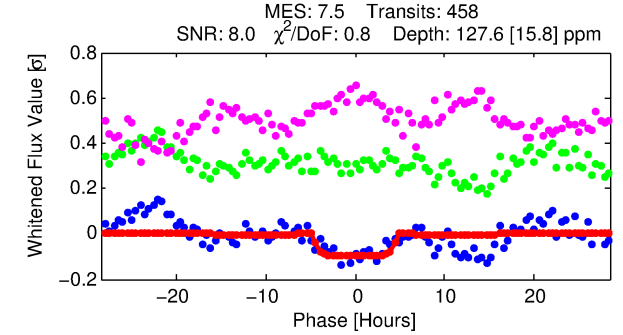
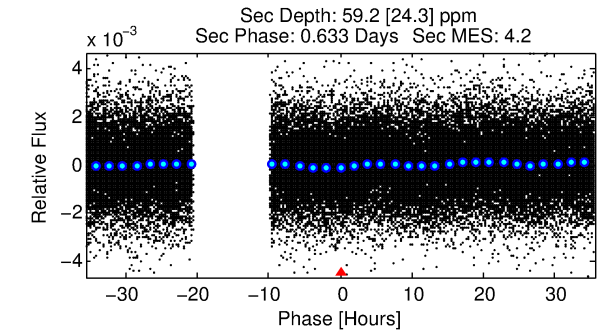
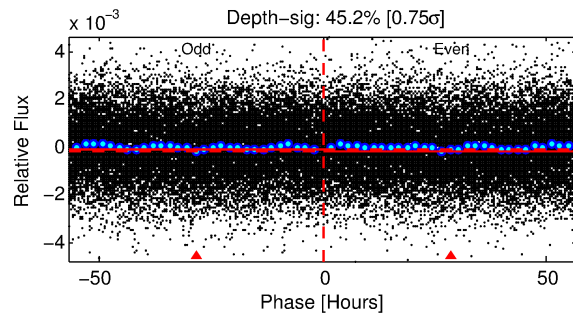
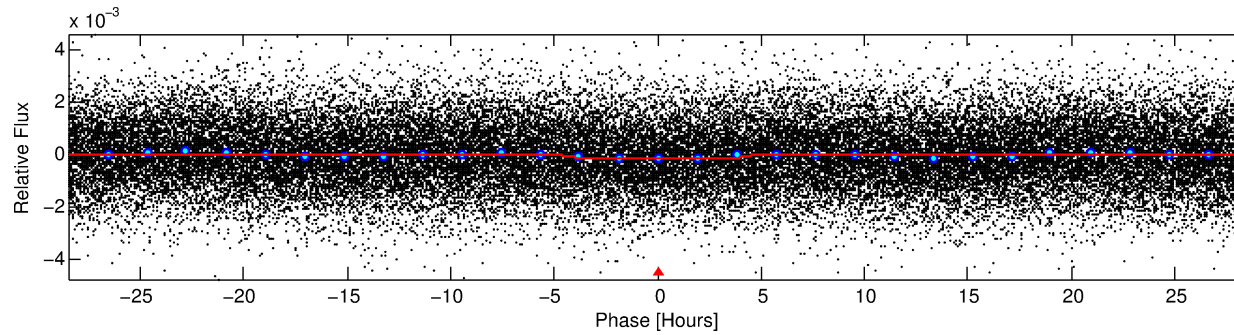
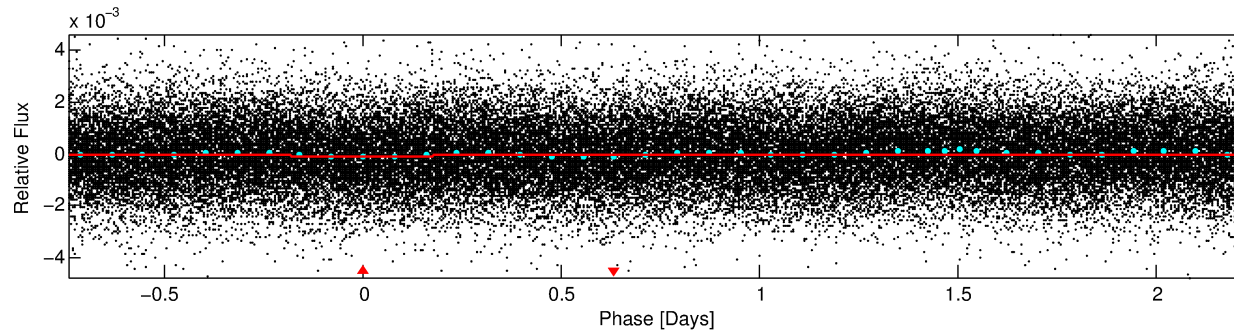
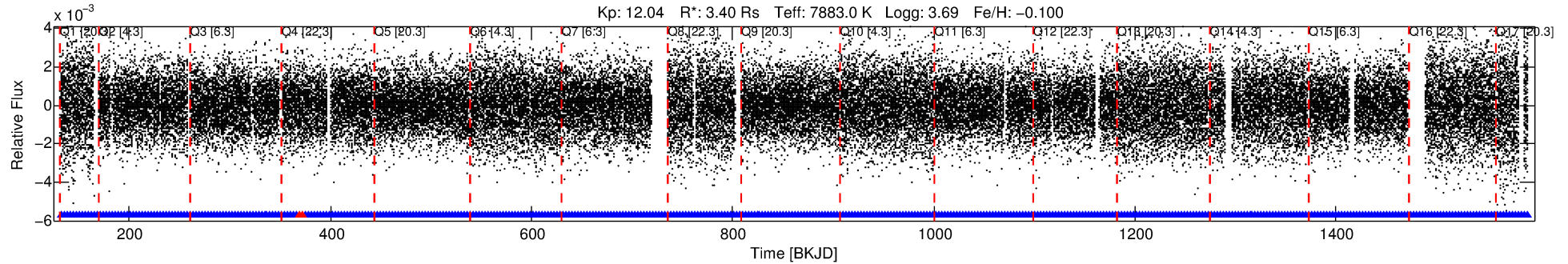
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005480730-01

No Significant Match Found

DV One-Page Summary

KIC: 5480730 Candidate: 1 of 1 Period: 2.969 d



DV Fit Results:

Period = 2.96871 [0.00006] d
Epoch = 132.5759 [0.0129] BKJD
Rp/R* = 0.0120 [0.0025]
a/R* = 1.45 [0.93]
b = 0.90 [0.26]
Seff = 15116.90 [11933.62]
Teff = 2827 [558] K
Rp = 4.46 [2.30] Re
a = 0.0514 [0.0243] AU
Ag = 4.33 [4.17] [0.80 σ]
Teffp = 6304 [950] K [3.16 σ]

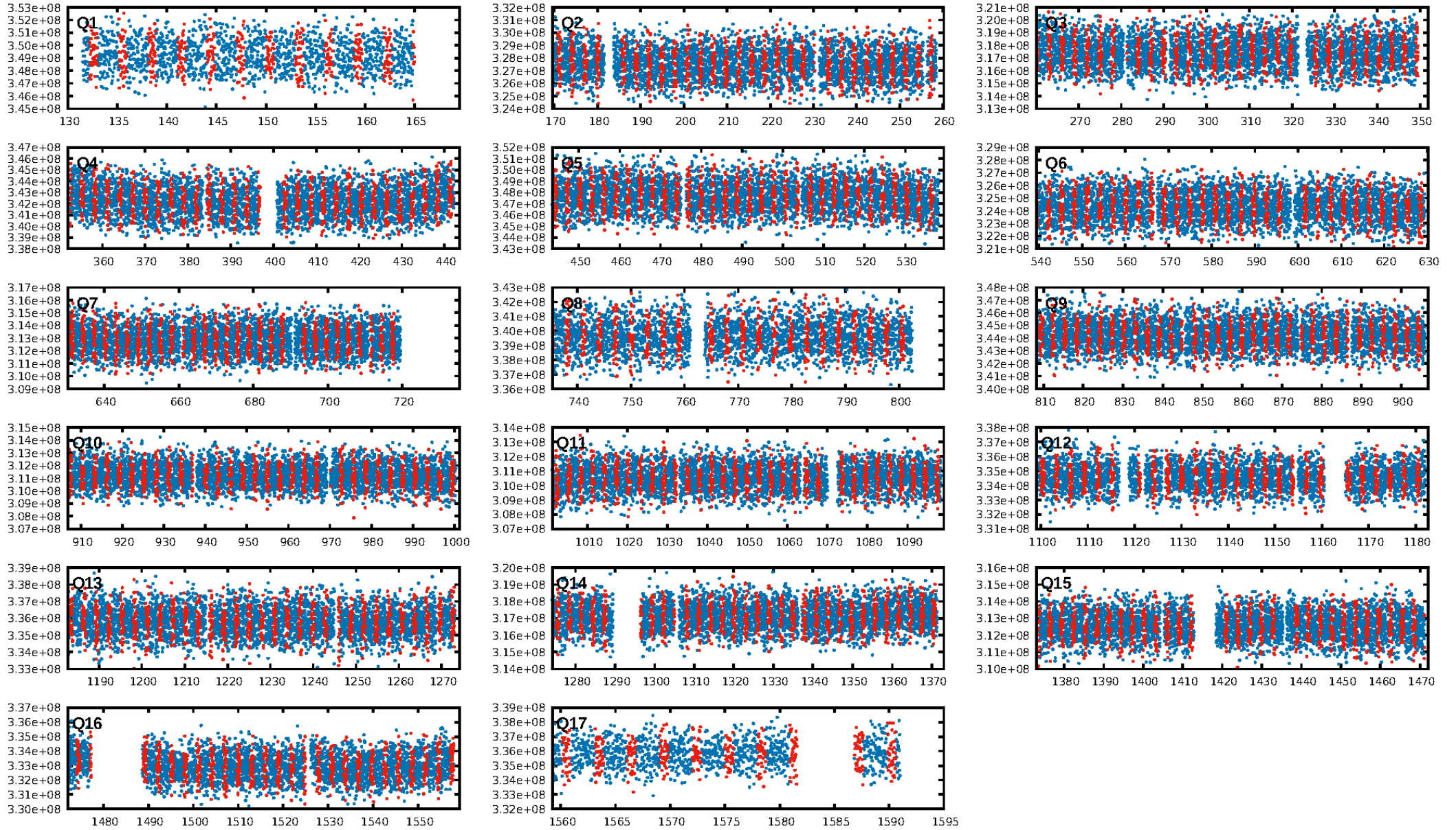
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.44e-12
RollingBand-fgt: 1.00 [435/437]
GhostDiagnostic-chr: -9.383
Centroid-sig: 0.0%
Centroid-so: 0.605 arcsec [3.65 σ]
OotOffset-rm: 0.185 arcsec [0.37 σ]
KicOffset-rm: 0.195 arcsec [0.40 σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [17/17]

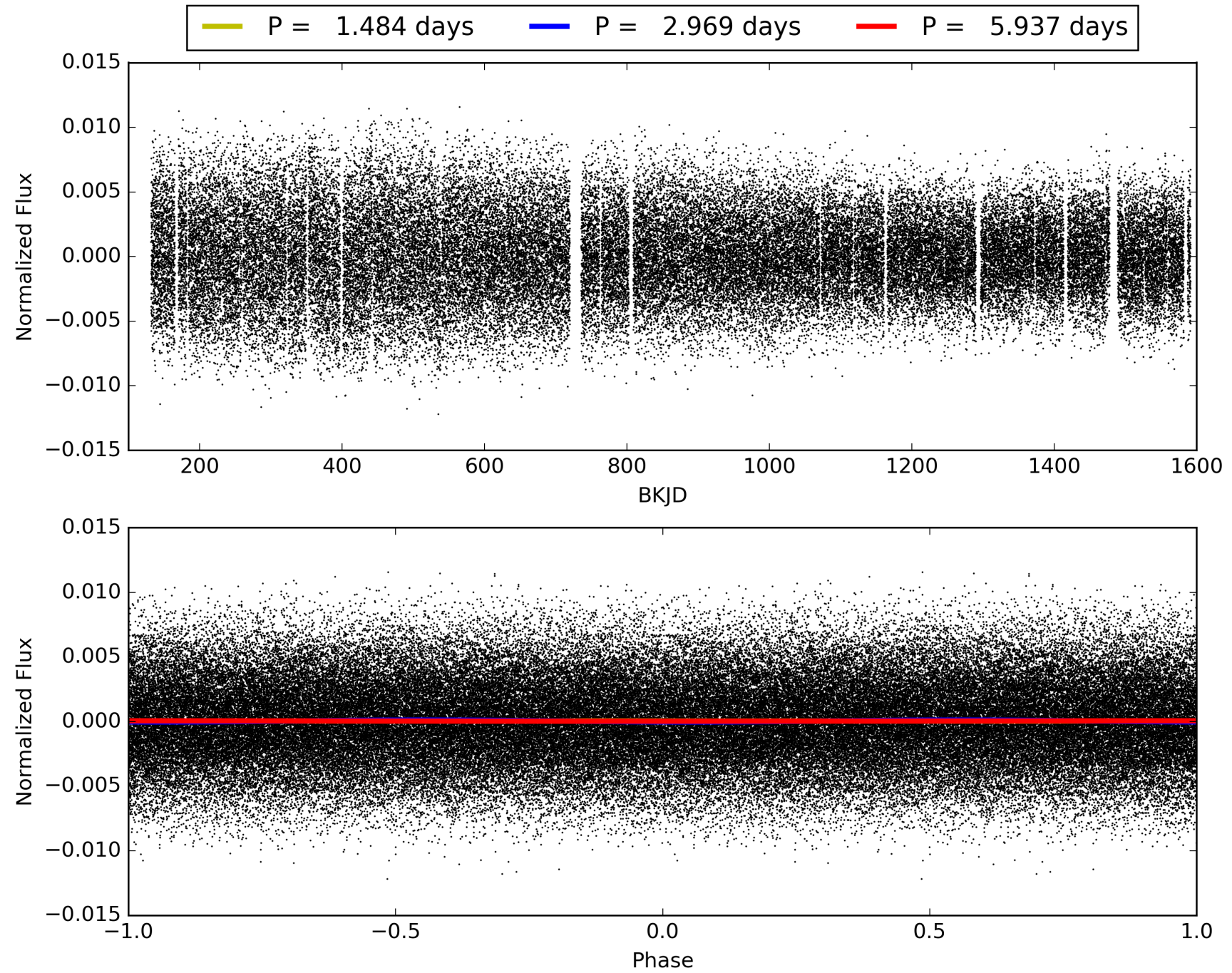
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:29:17 Z

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

TCE 005480730-01, PDC Light Curves

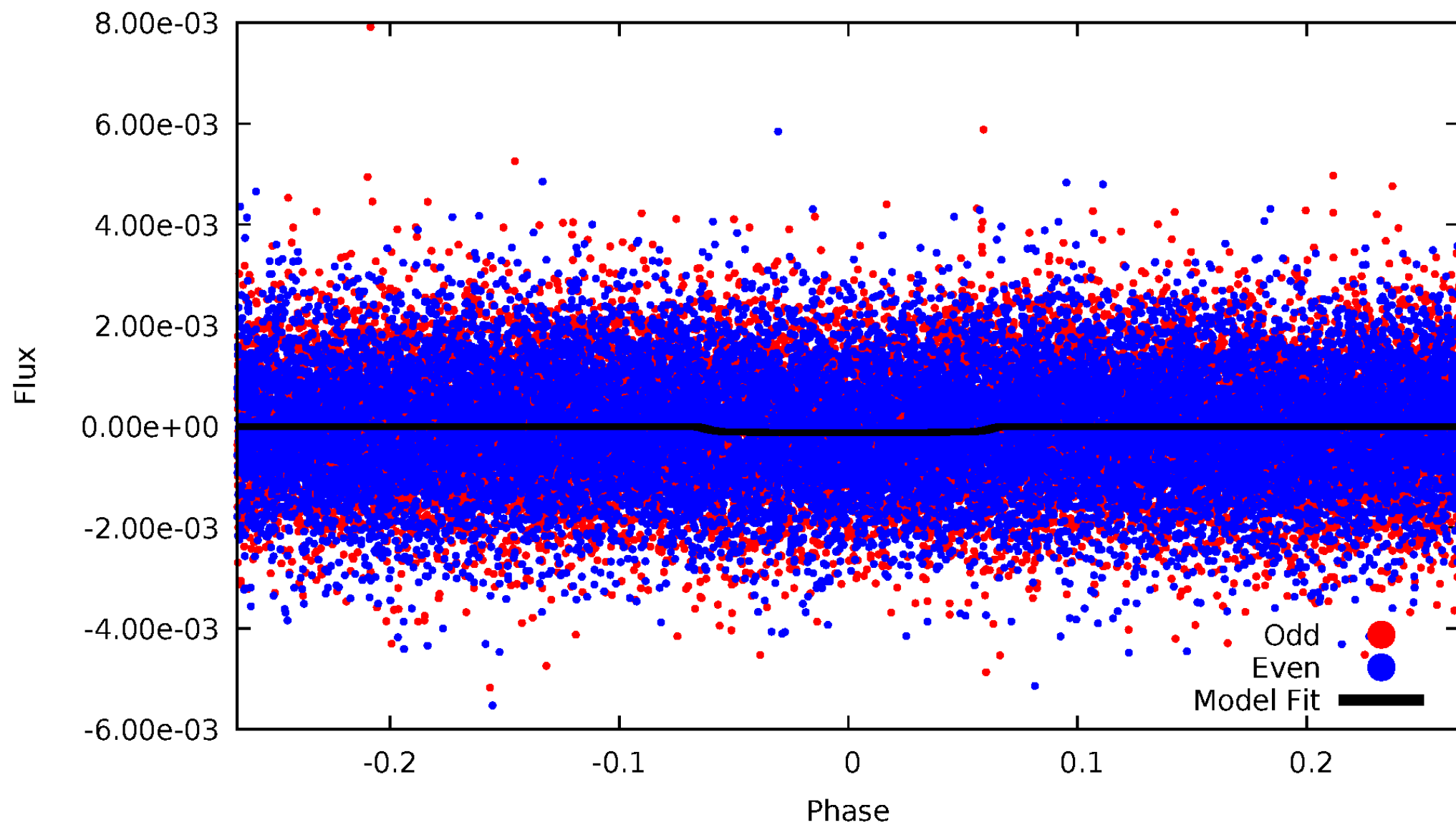


TCE 005480730-01



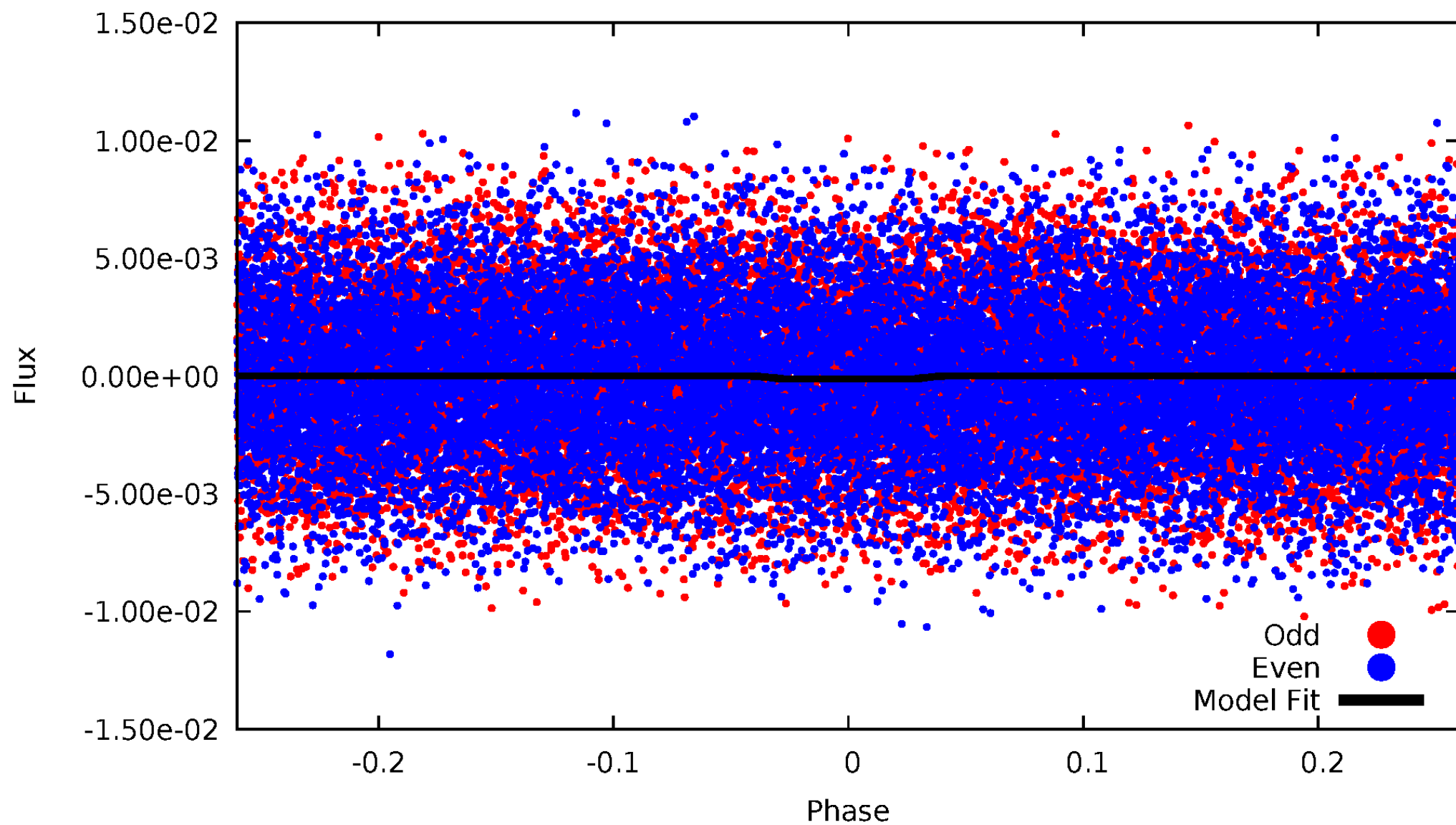
DV Odd/Even

TCE 005480730-01

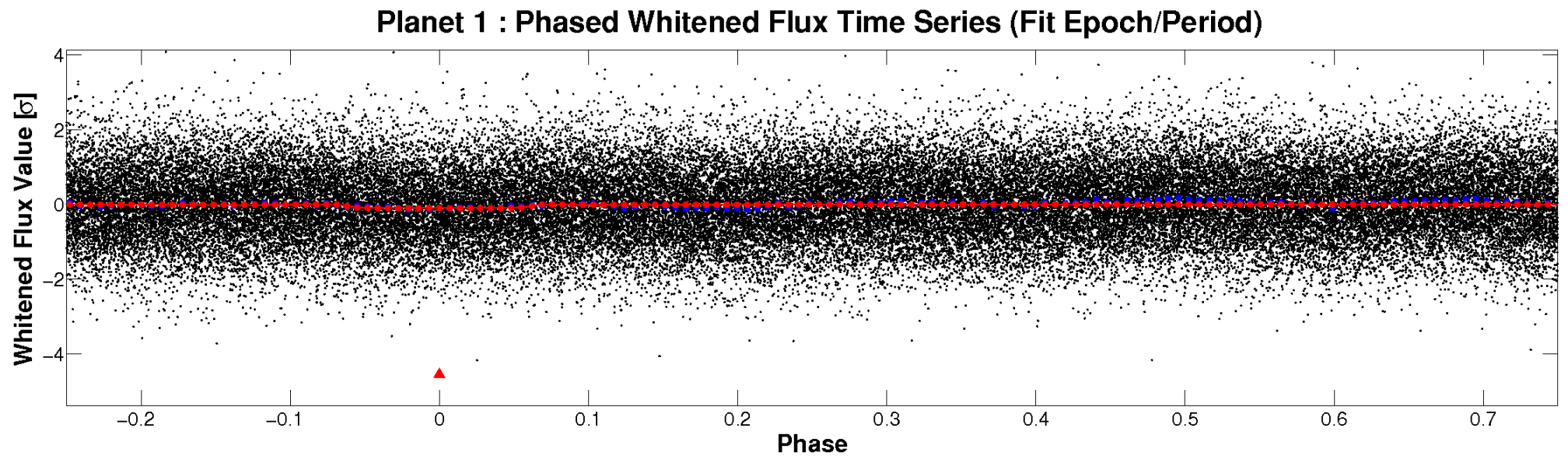
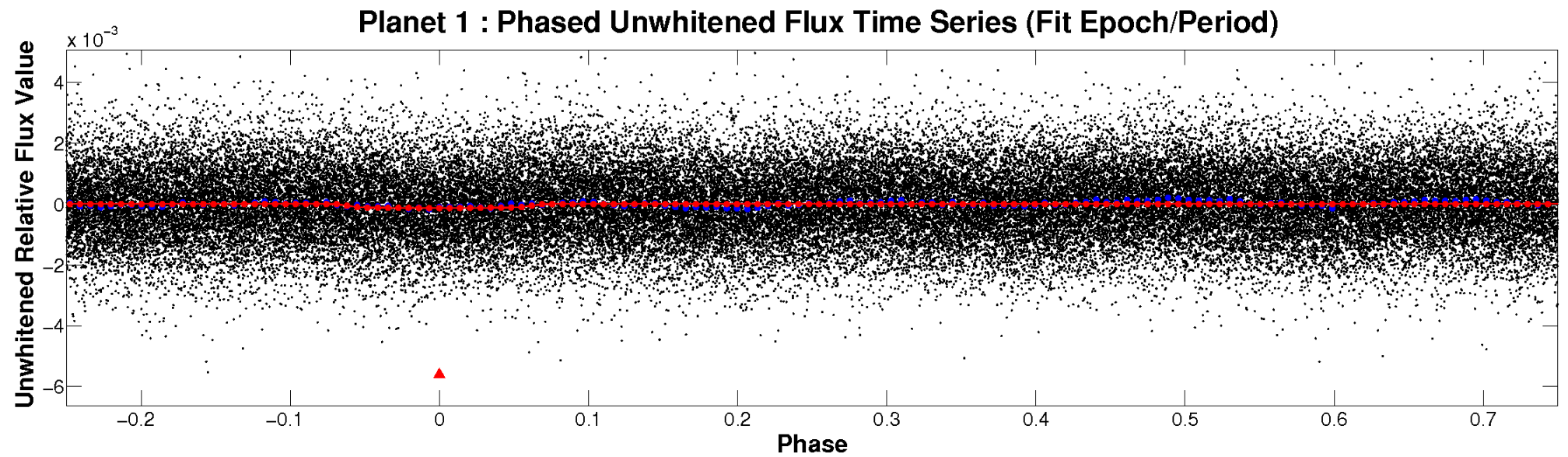


ALT Odd/Even

TCE 005480730-01

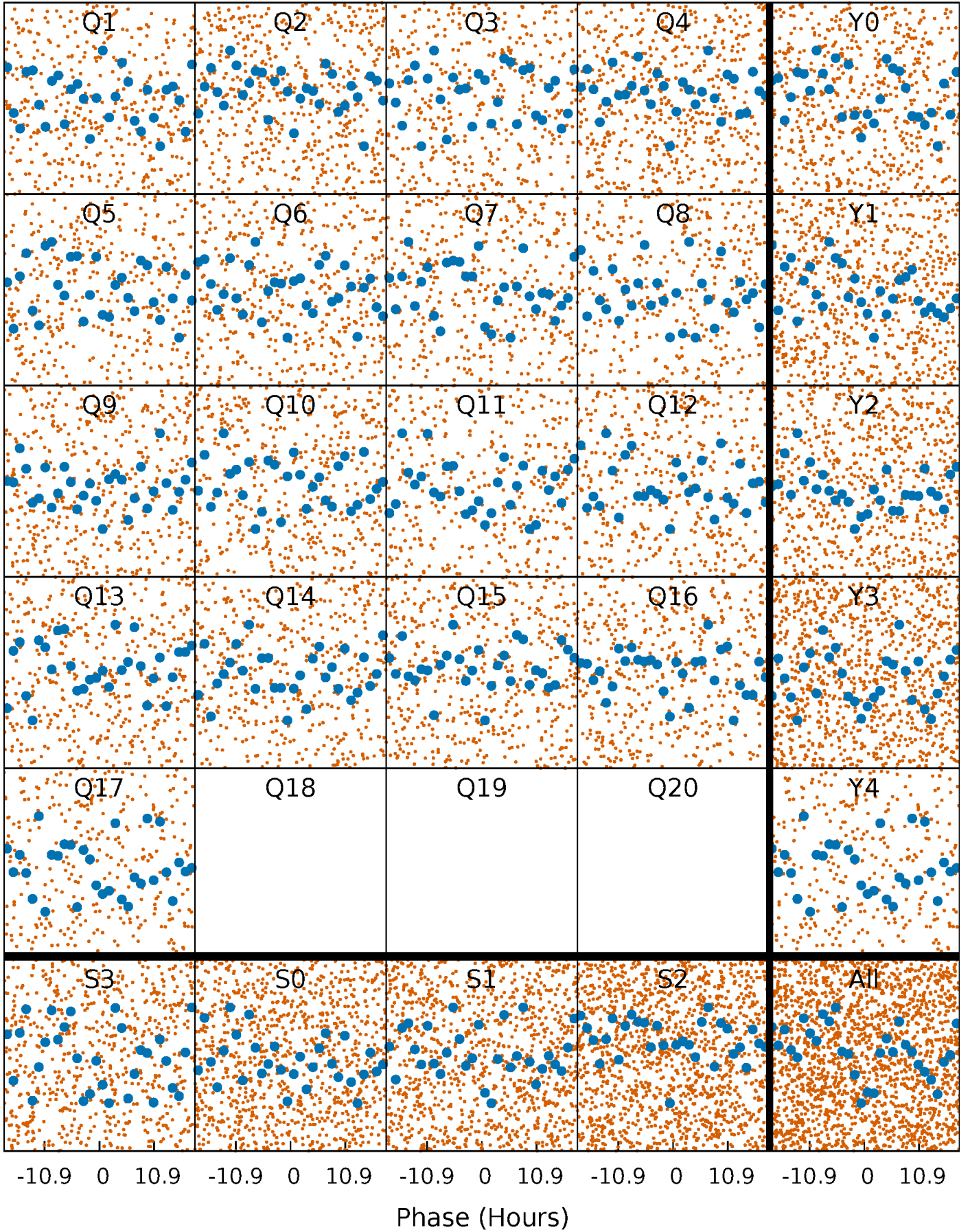


Non-Whitened Vs. Whitened Light Curve



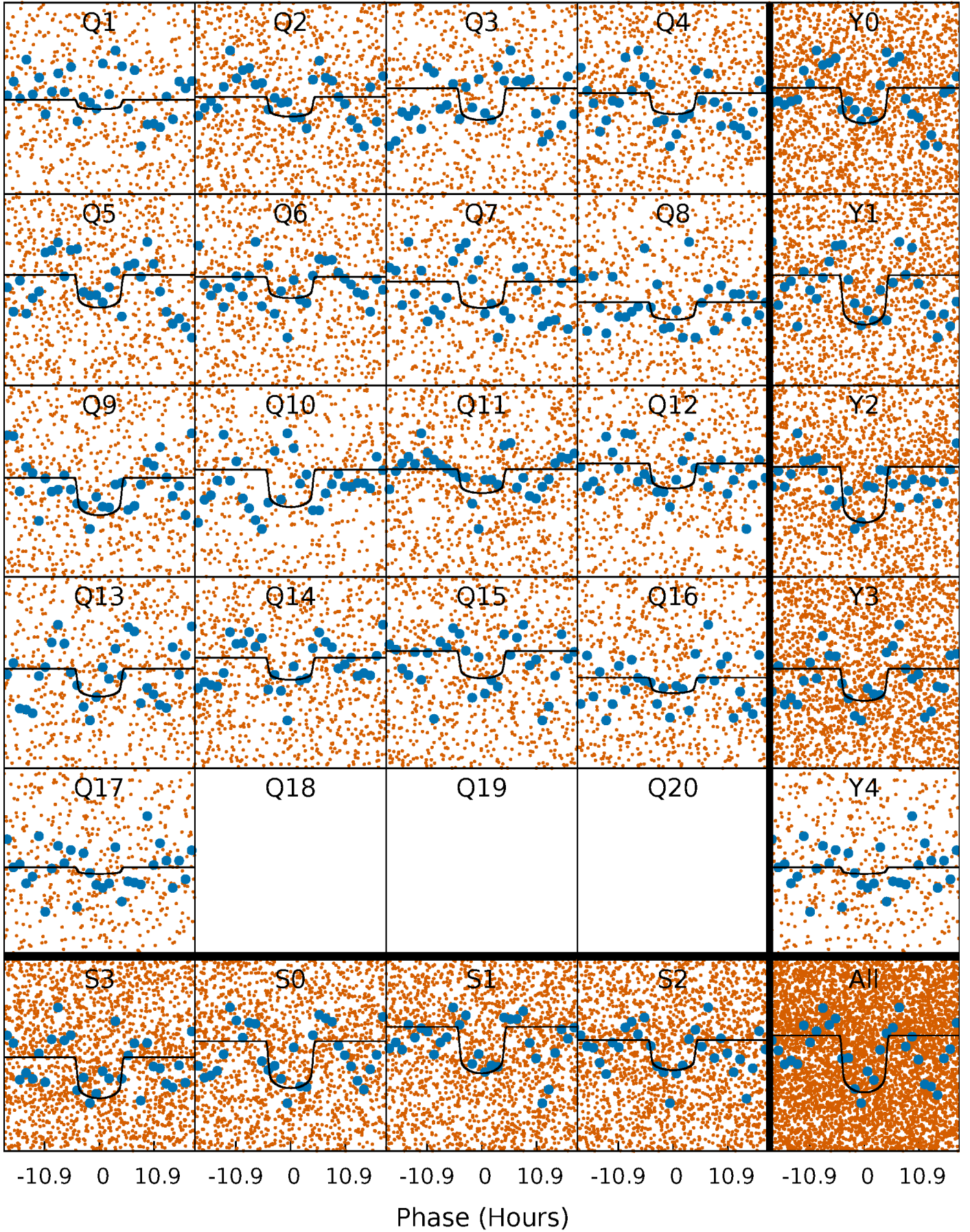
PDC Quarter-Phased Transit Curves

TCE 005480730-01 P= 2.968713 Days $T_0=132.575928$ (BKJD)



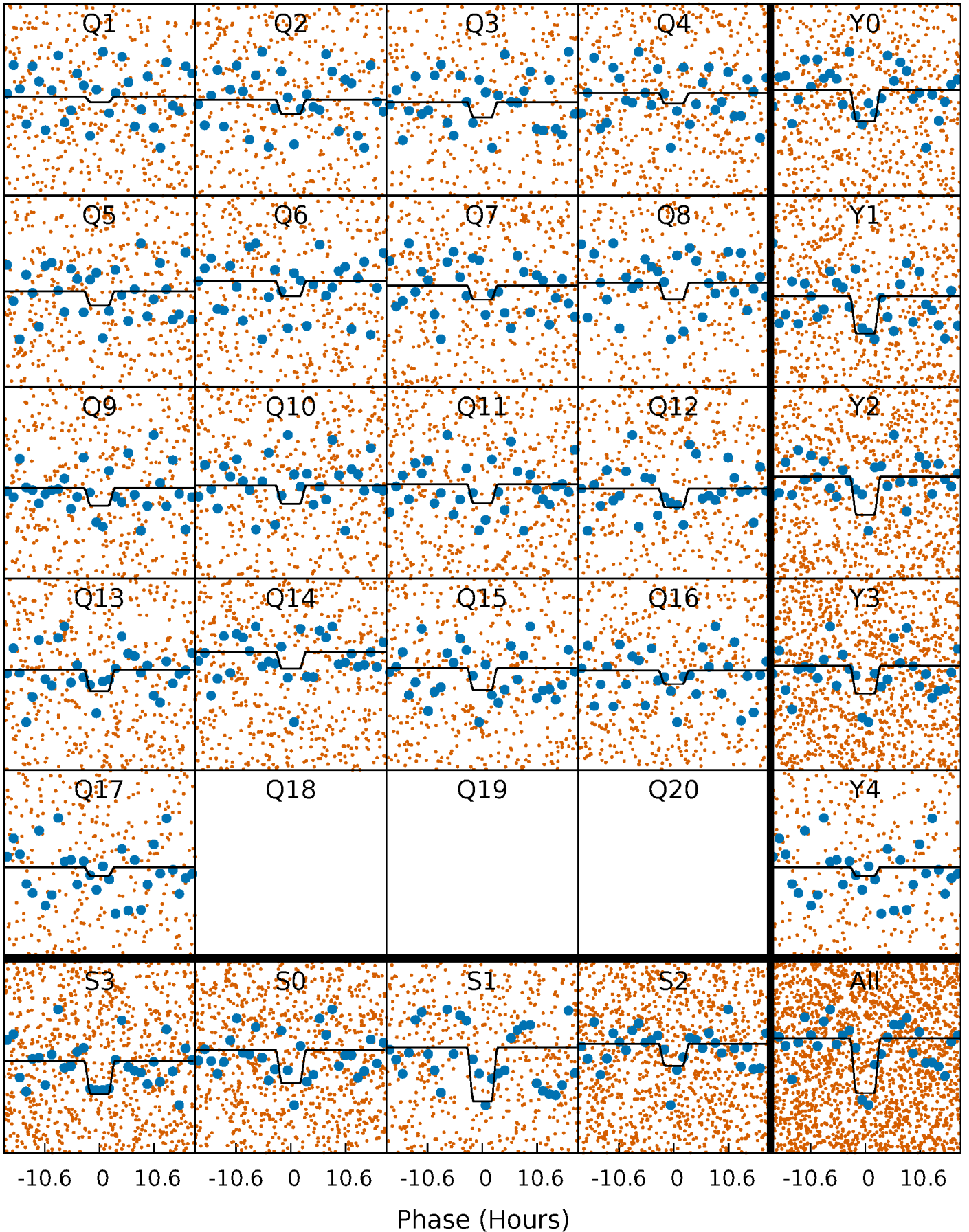
DV Quarter-Phased Transit Curves

TCE 005480730-01 P= 2.968713 Days $T_0=132.575928$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

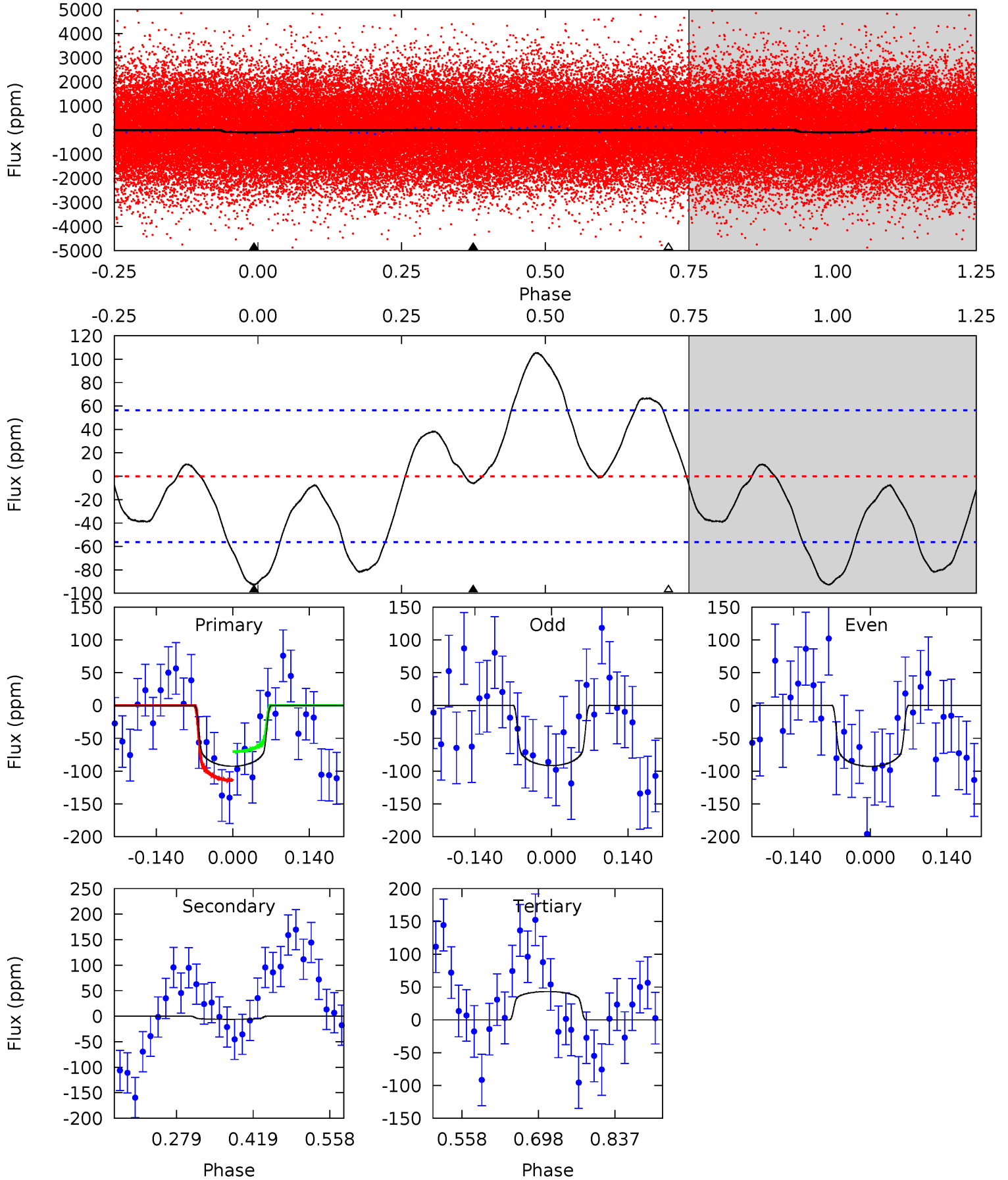
TCE 005480730-01 P= 2.968629 Days $T_0=132.579740$ (BKJD)



DV Model-Shift Uniqueness Test

005480730-01, P = 2.968713 Days, E = 129.607215 Days

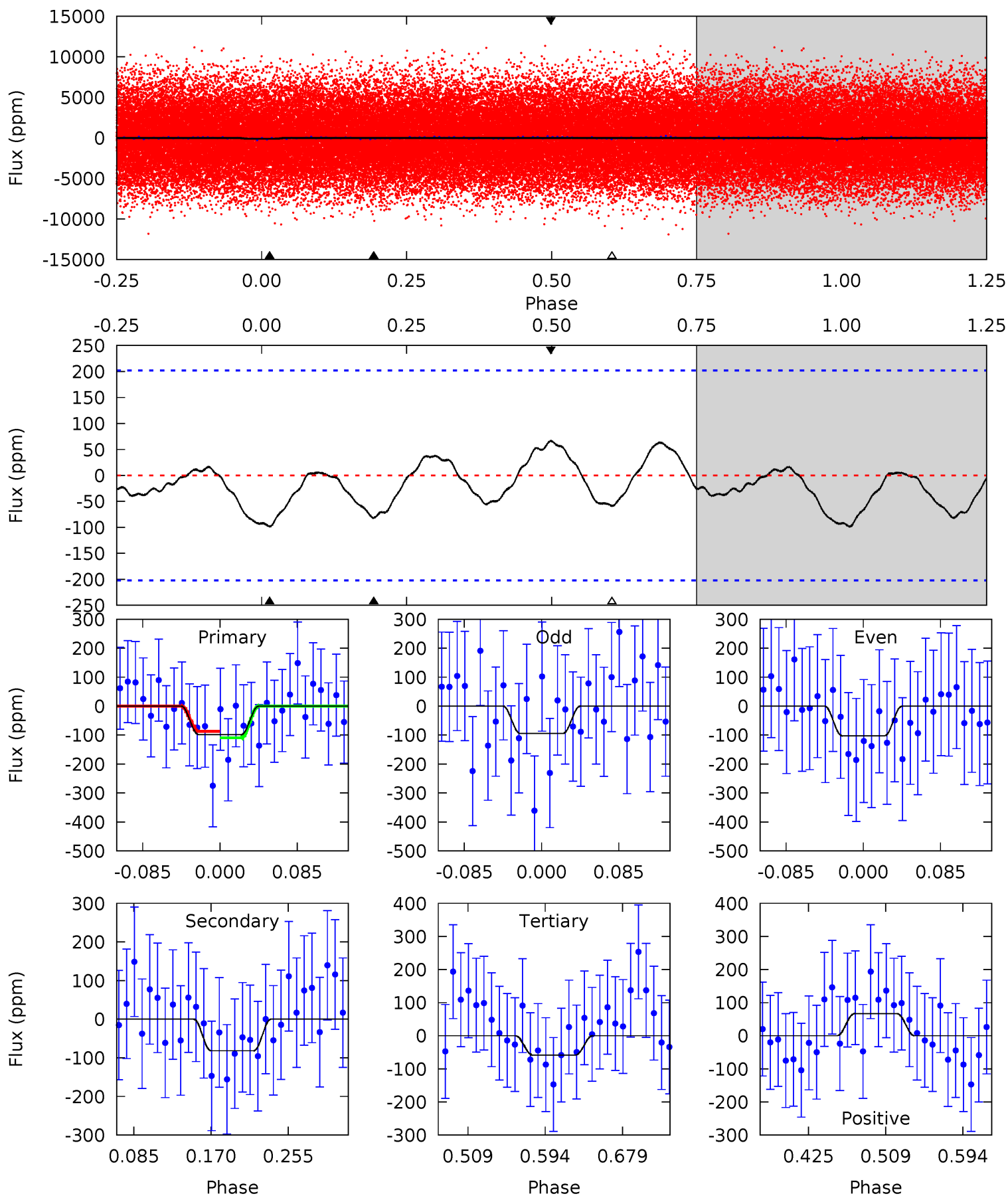
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.39	0.48	-3.44	0	4.49	1.48	3.85	10.8	7.39	3.93	0.48	0.05	0.84	0.53	1.75



Alt Model-Shift Uniqueness Test

005480730-01, P = 2.968629 Days, E = 129.611111 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.24	1.86	1.33	1.51	4.60	1.72	0.81	0.91	0.73	0.53	0.35	0.09	1.94	0.40	0.25



Stellar Parameters For KIC 005480730

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7883^{+218}_{-327}	$3.688^{+0.459}_{-0.108}$	$-0.100^{+0.200}_{-0.350}$	$3.395^{+0.688}_{-1.604}$	$2.047^{+0.328}_{-0.533}$	$0.074^{+0.316}_{-0.025}$
	+3%/-4%	+12%/-3%	+200%/-350%	+20%/-47%	+16%/-26%	+428%/-34%
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 005480730-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6 ± 13	$4.19^{+1.28}_{-1.30}$	3824^{+310}_{-466}	3163^{+1478}_{-7444}	$0.447^{+1.464}_{-1.010}$
Alt.	-82 ± 44	$4.01^{+1.29}_{-1.25}$	3823^{+290}_{-451}	6615^{+1511}_{-1351}	$7.196^{+8.951}_{-4.357}$

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 $A_{obs} \gg 1.0$

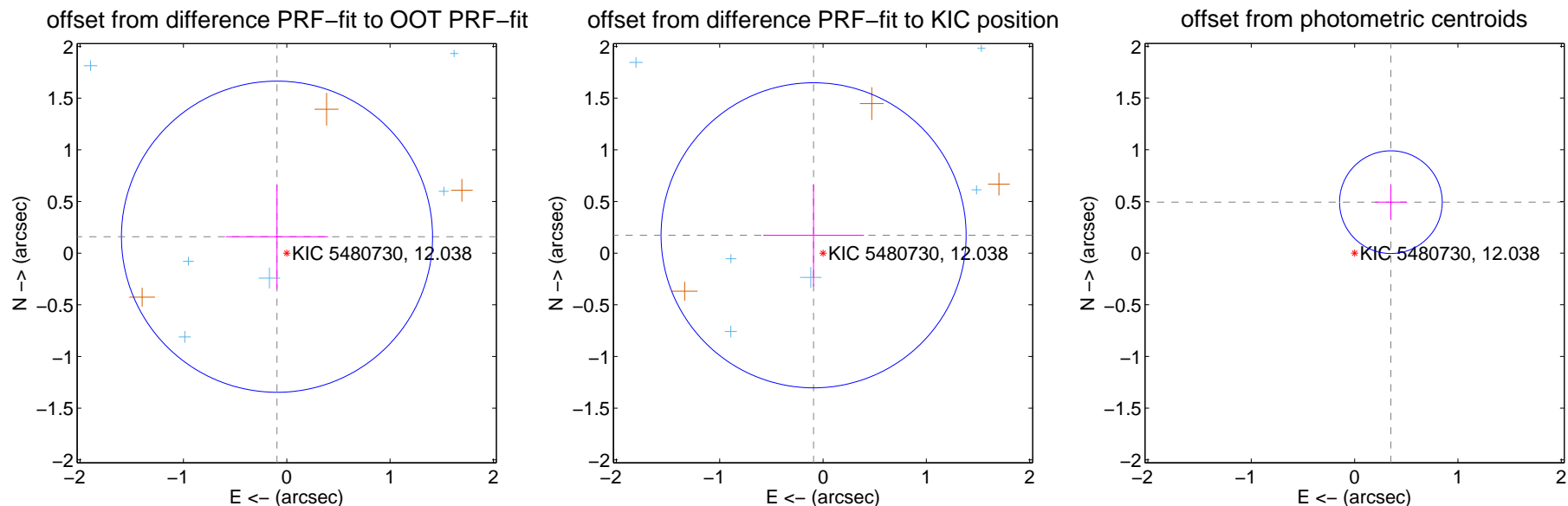
DV Centroid Data

Supplemental centroid analysis for 005480730-01. Kepler magnitude: 12.04. Transit SNR 8.01

There are 7 quarters with good PRF difference image offsets

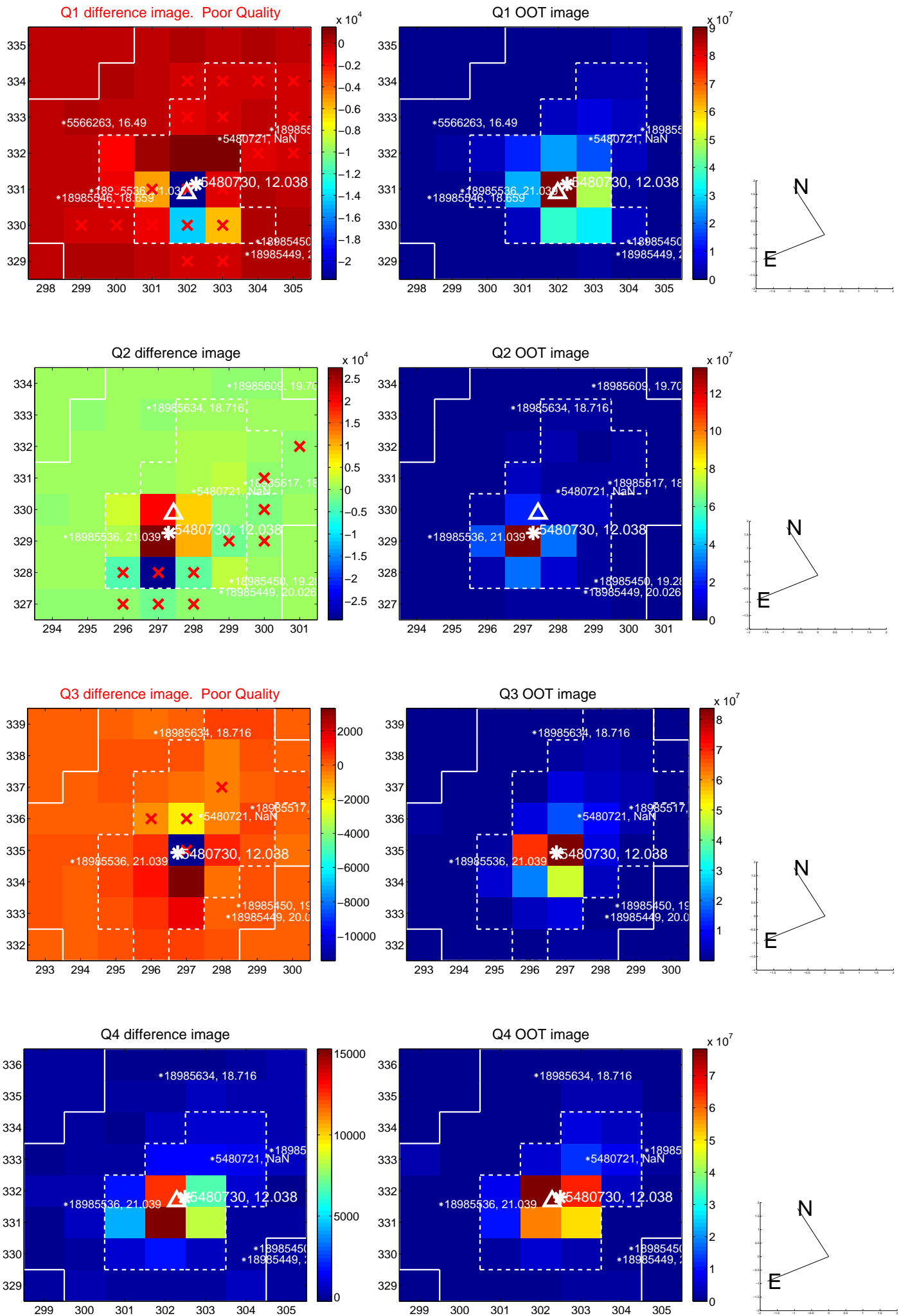
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.185 ± 0.502	0.37	0.094 ± 0.495	0.159 ± 0.504
PRF-fit source offset from KIC position	0.195 ± 0.492	0.40	0.091 ± 0.488	0.173 ± 0.493
photometric centroid source offset	0.60 ± 0.17	3.65	-0.35 ± 0.15	0.49 ± 0.17

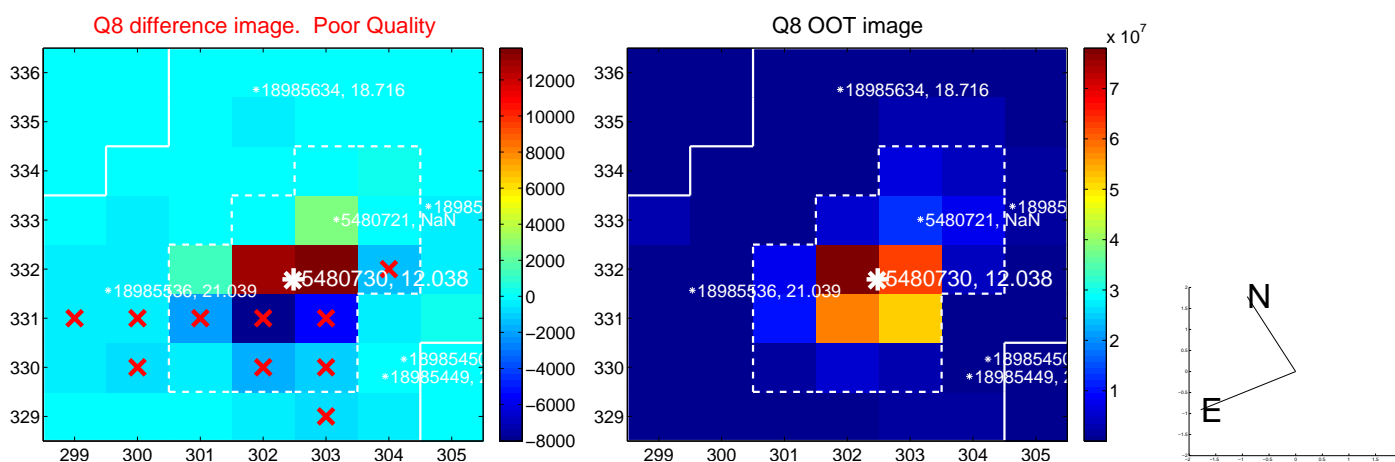
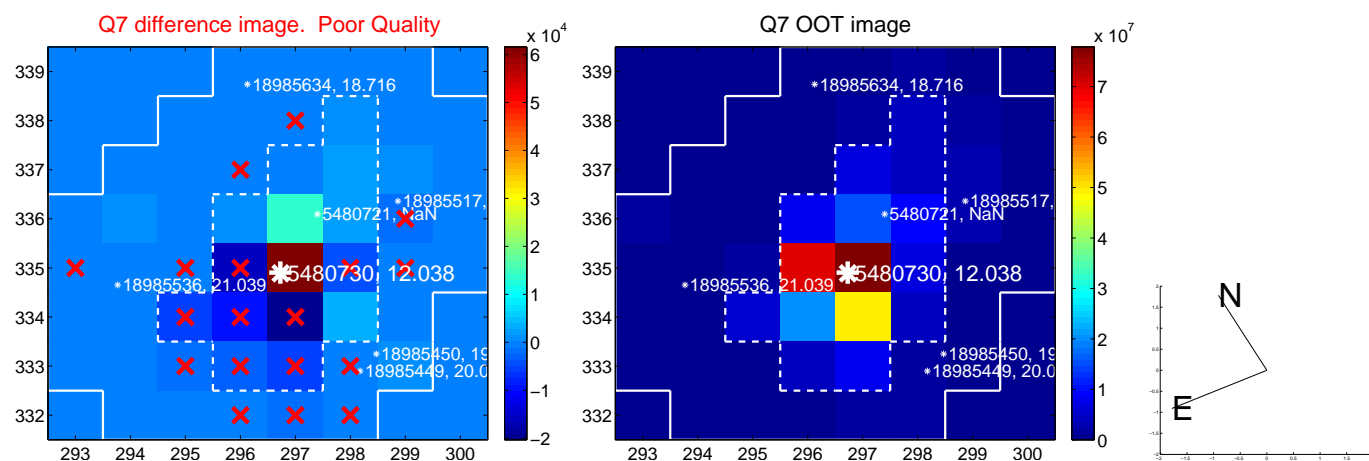
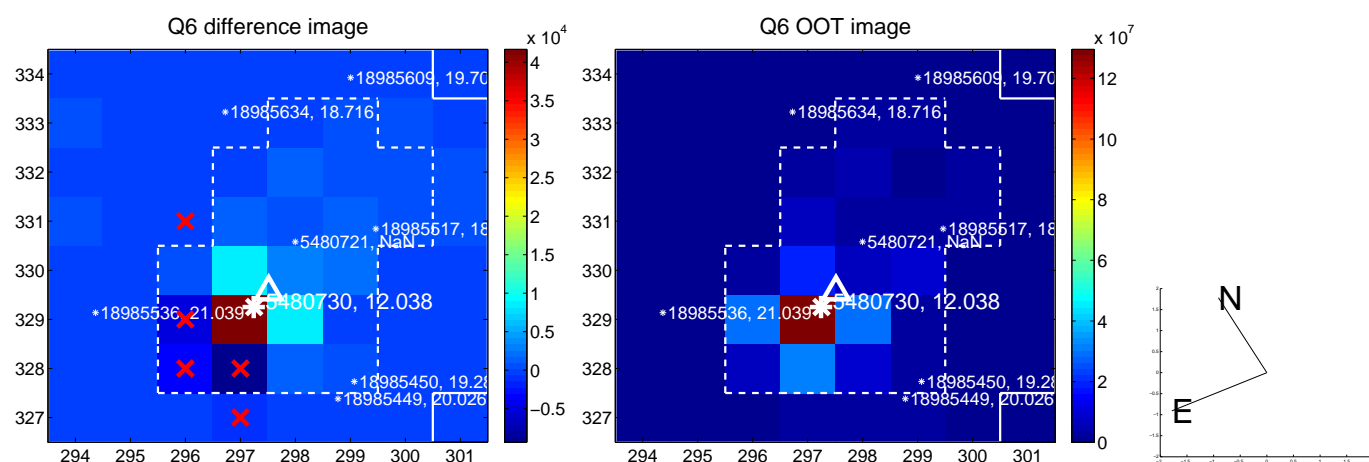
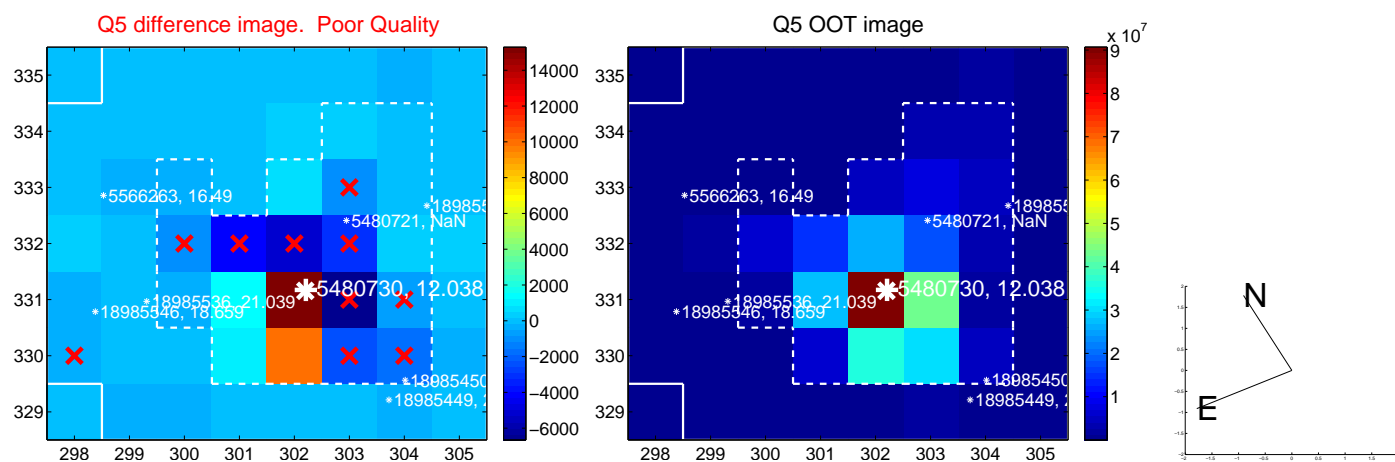


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

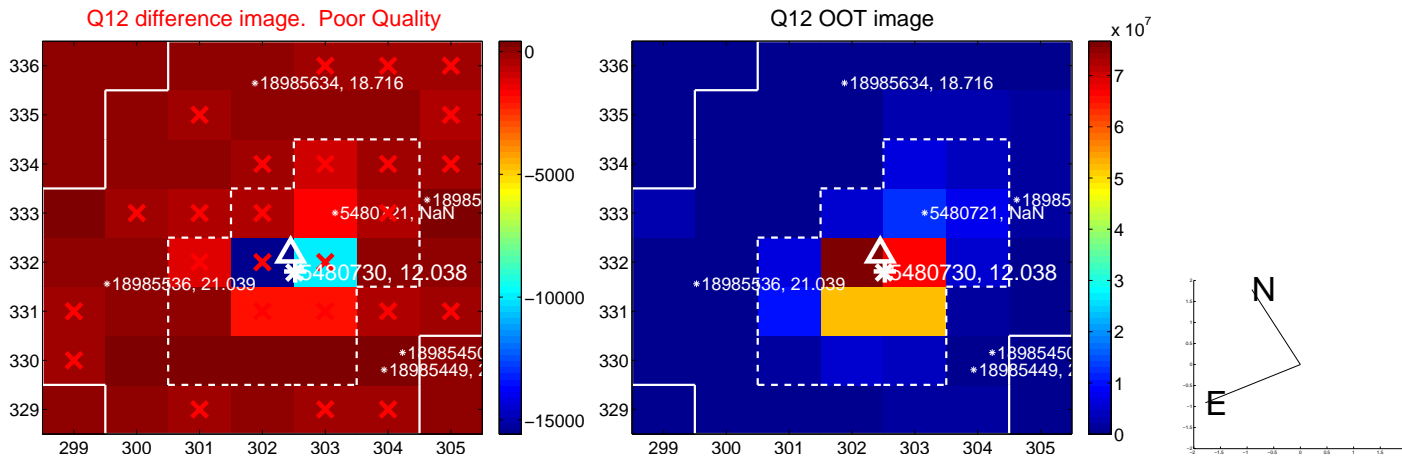
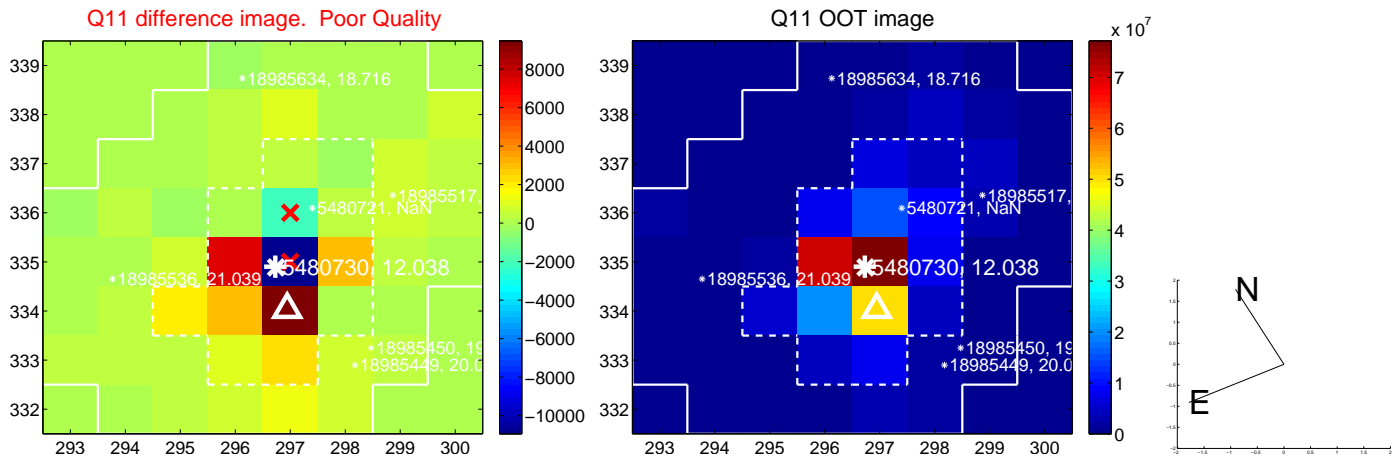
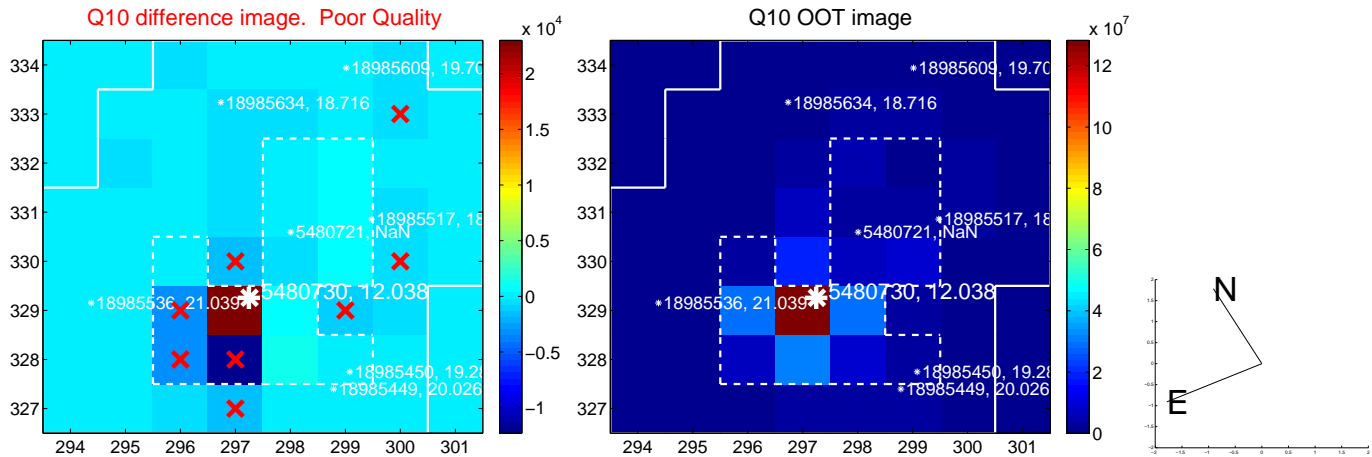
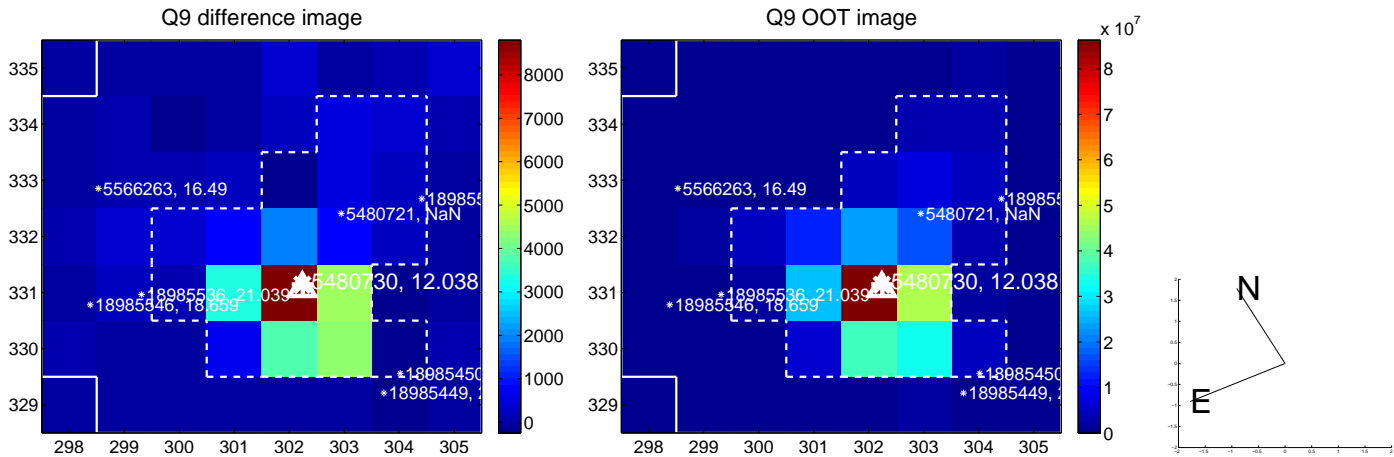
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



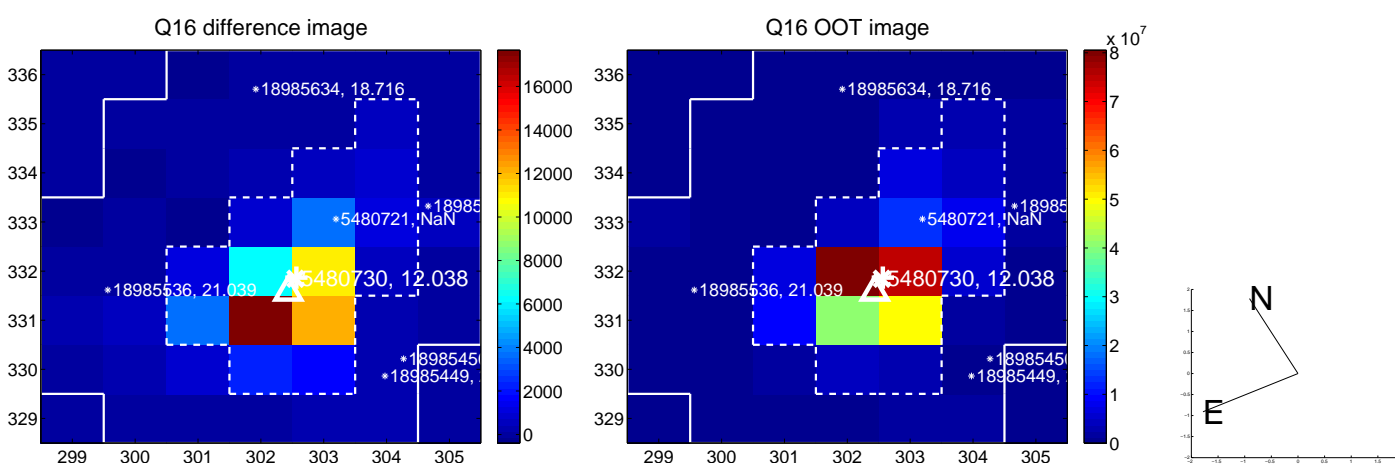
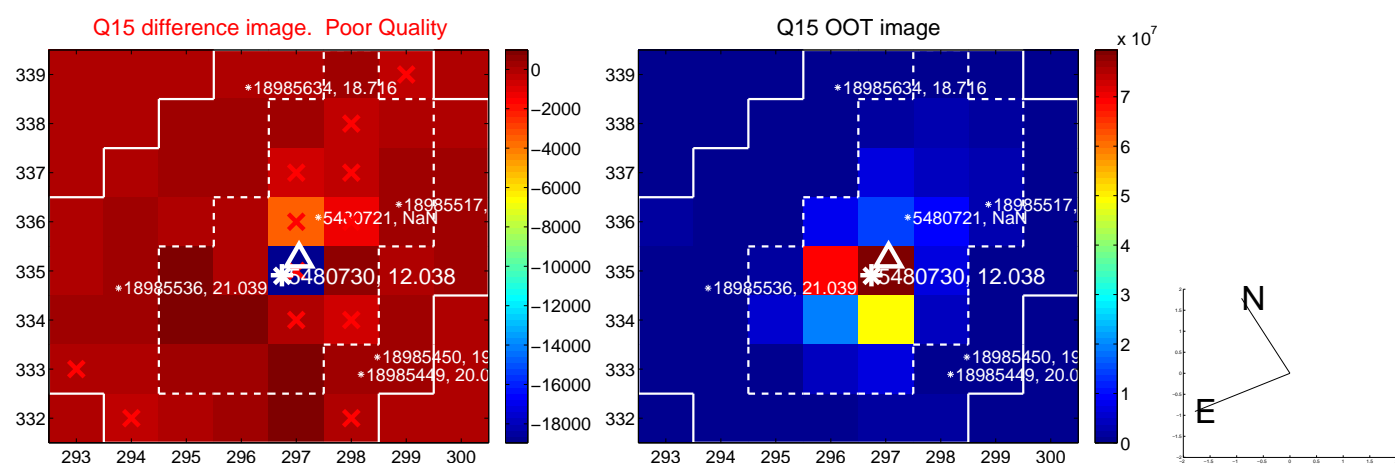
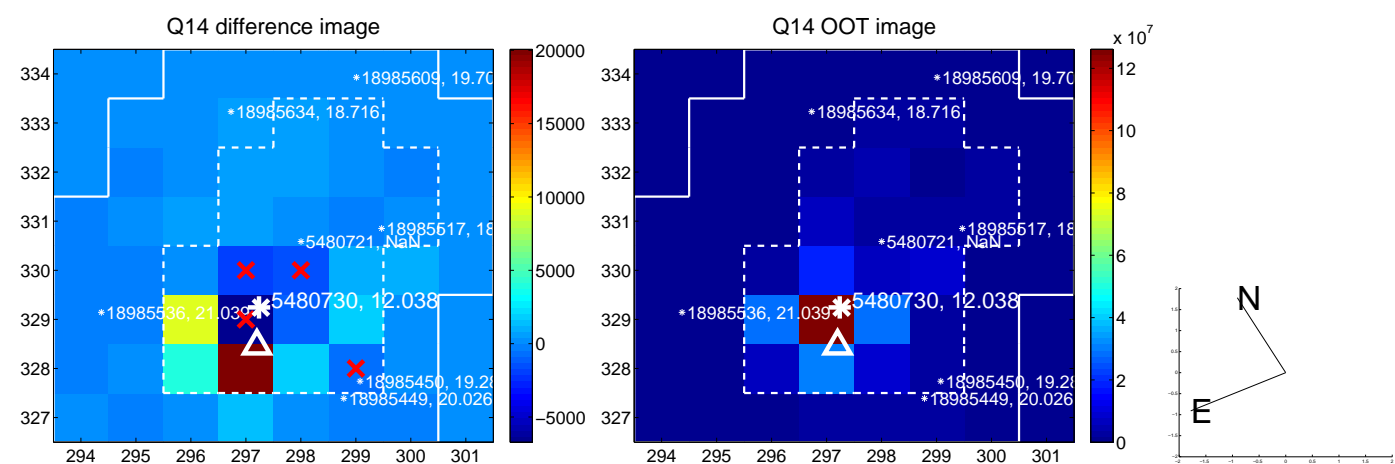
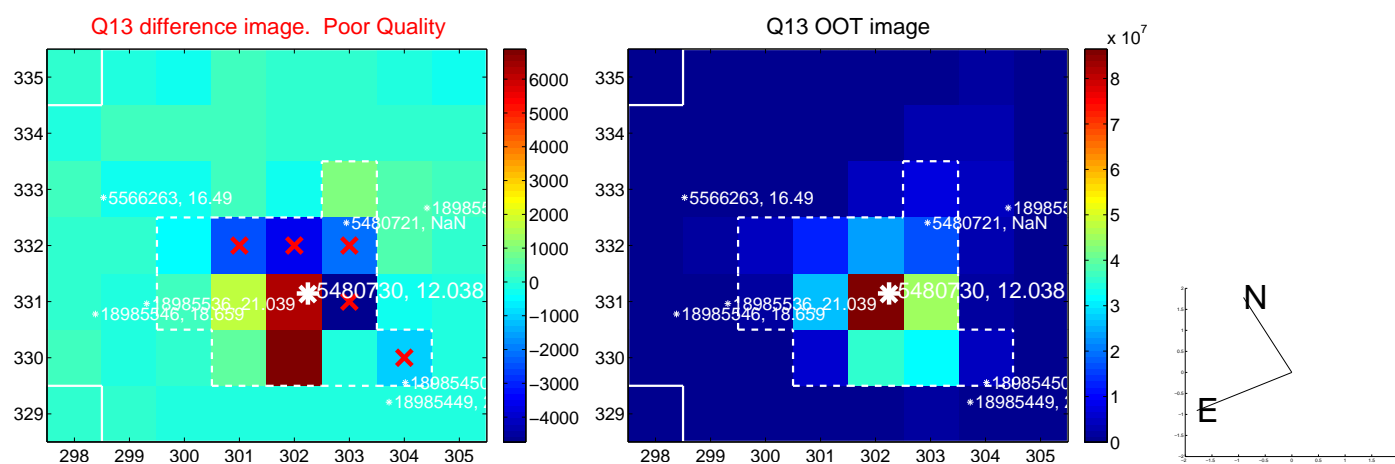
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



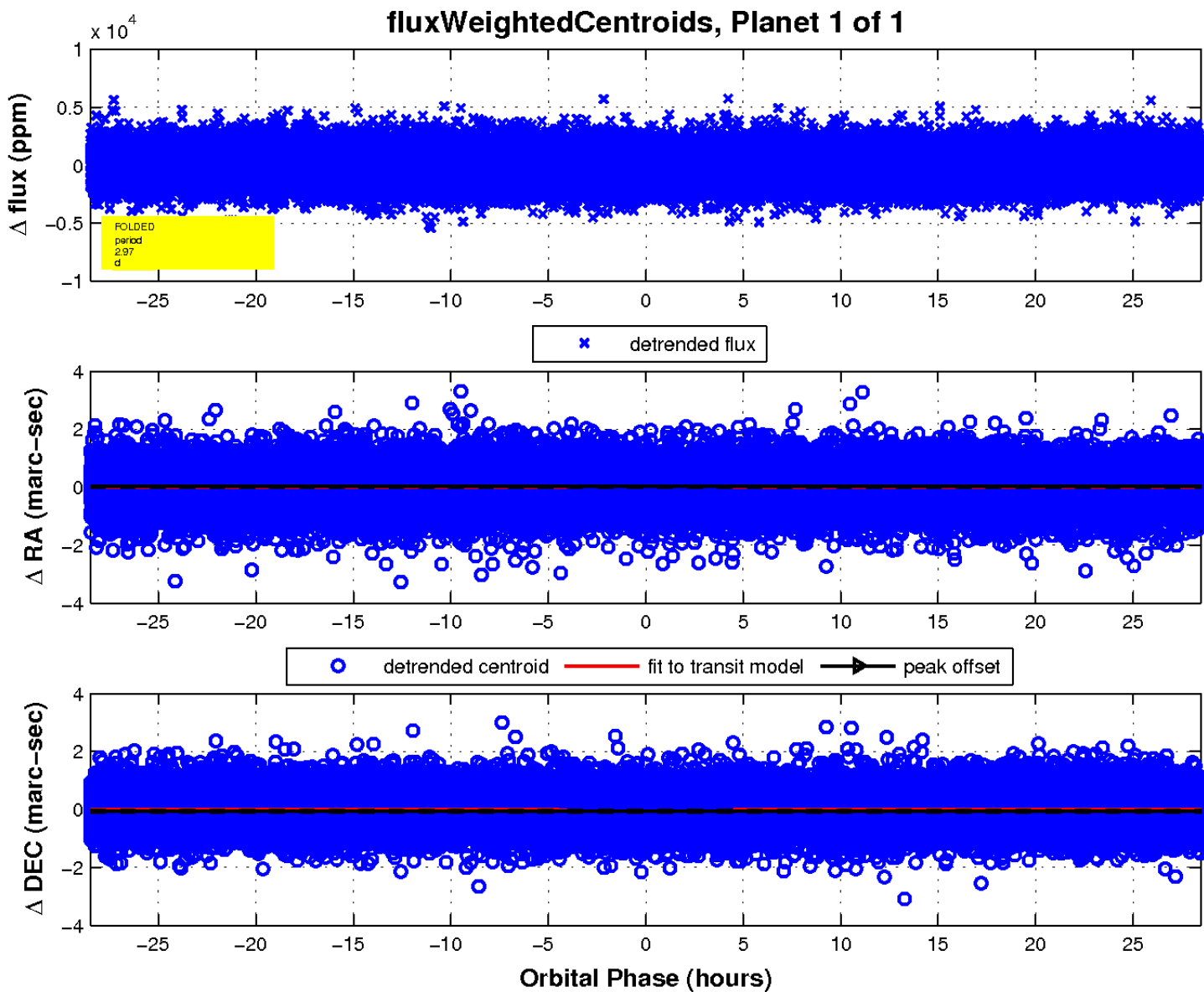
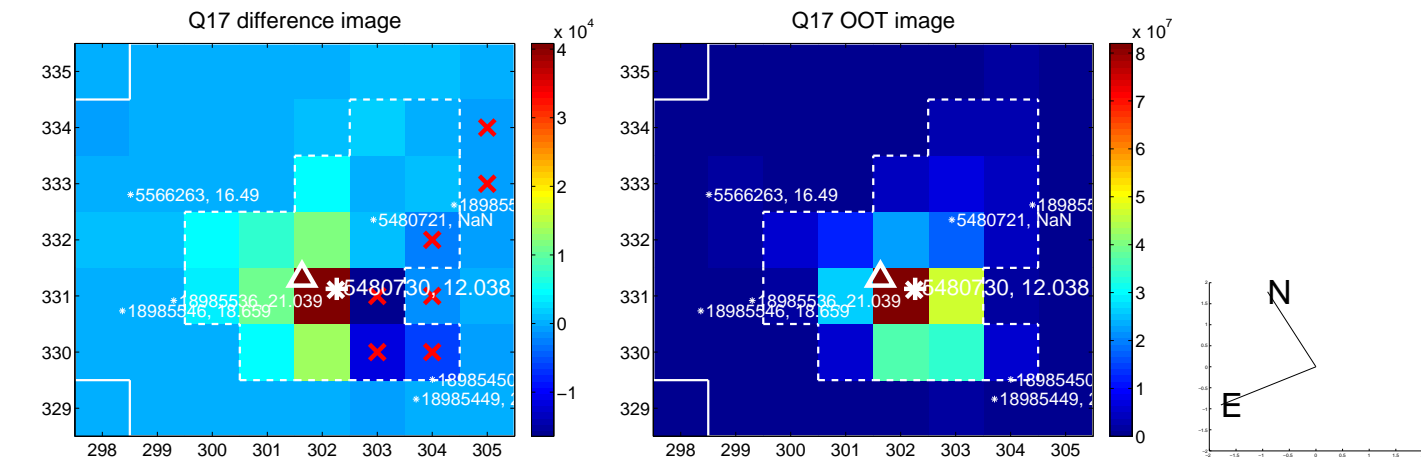
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UKIRT Image

Declination

