

KIC 005479304

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})
005479304-01	OBS	No	2.492691	132.164920	10.5	3.746	9.0	0.4	1.10	6455	0.42	1336.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005479304-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

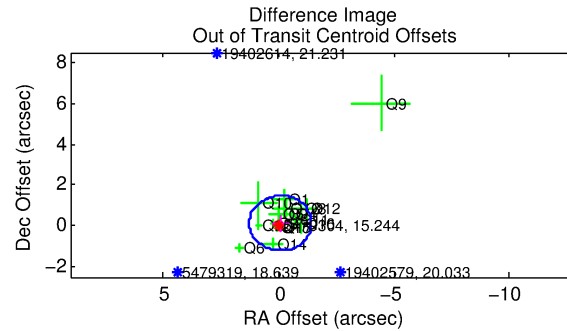
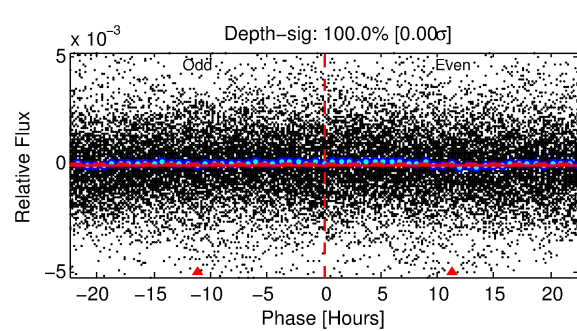
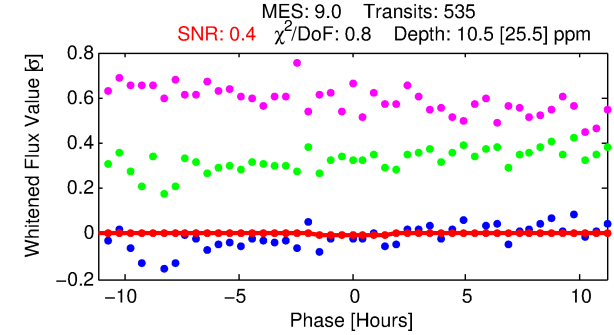
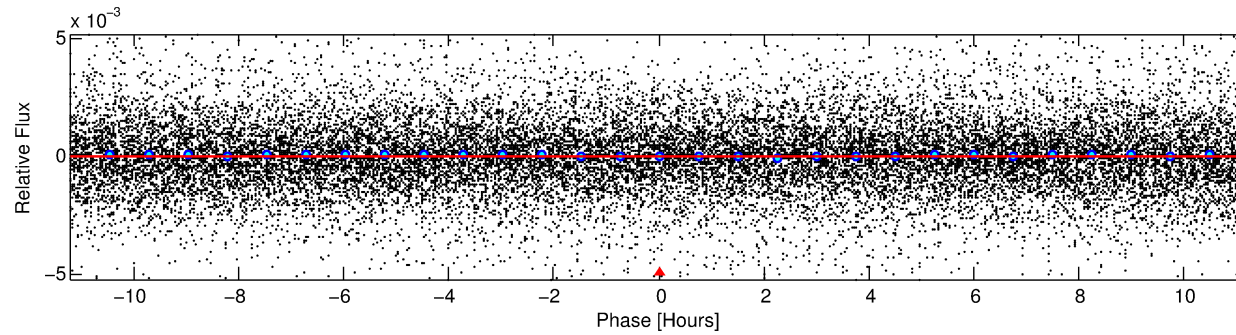
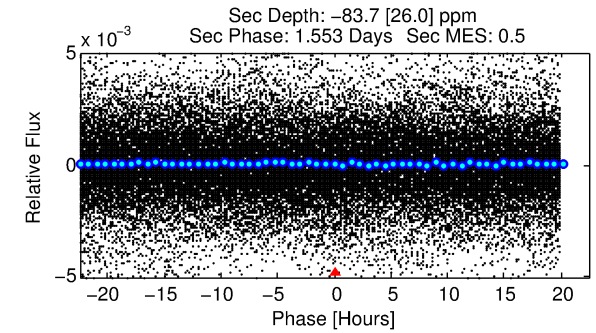
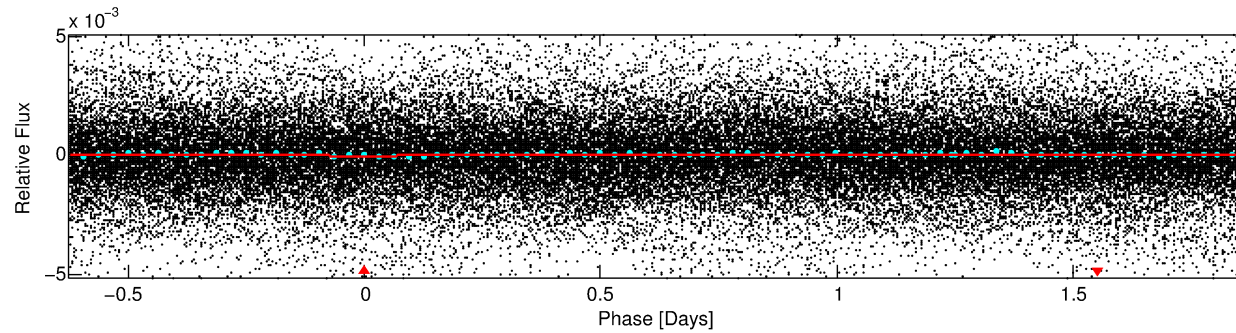
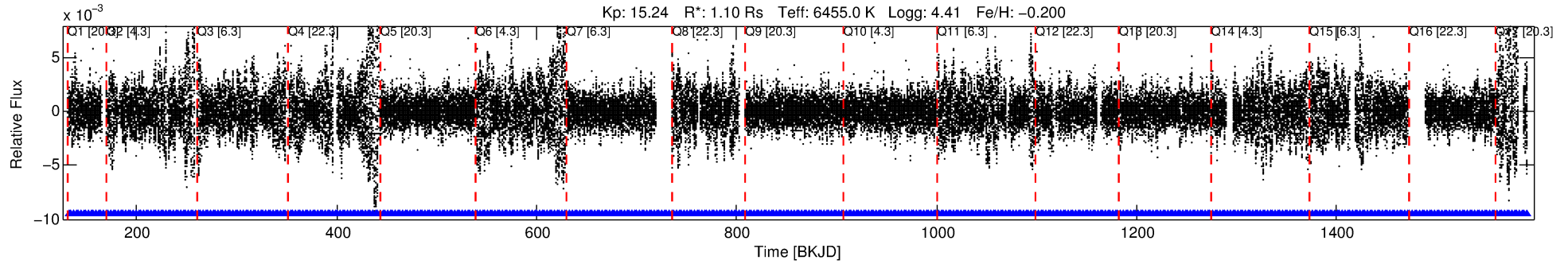
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005479304-01

No Significant Match Found

DV One-Page Summary

KIC: 5479304 Candidate: 1 of 1 Period: 2.493 d



DV Fit Results:

Period = 2.49269 [0.00028] d
Epoch = 132.1649 [0.0518] BKJD
Rp/R* = 0.0035 [0.0088]
a/R* = 2.45 [26.05]
b = 0.90 [2.75]
Seff = 1336.94 [524.50]
Teff = 1542 [151] K
Rp = 0.42 [1.06] Re
a = 0.0376 [0.0097] AU
Ag = N/A
Teffp = N/A

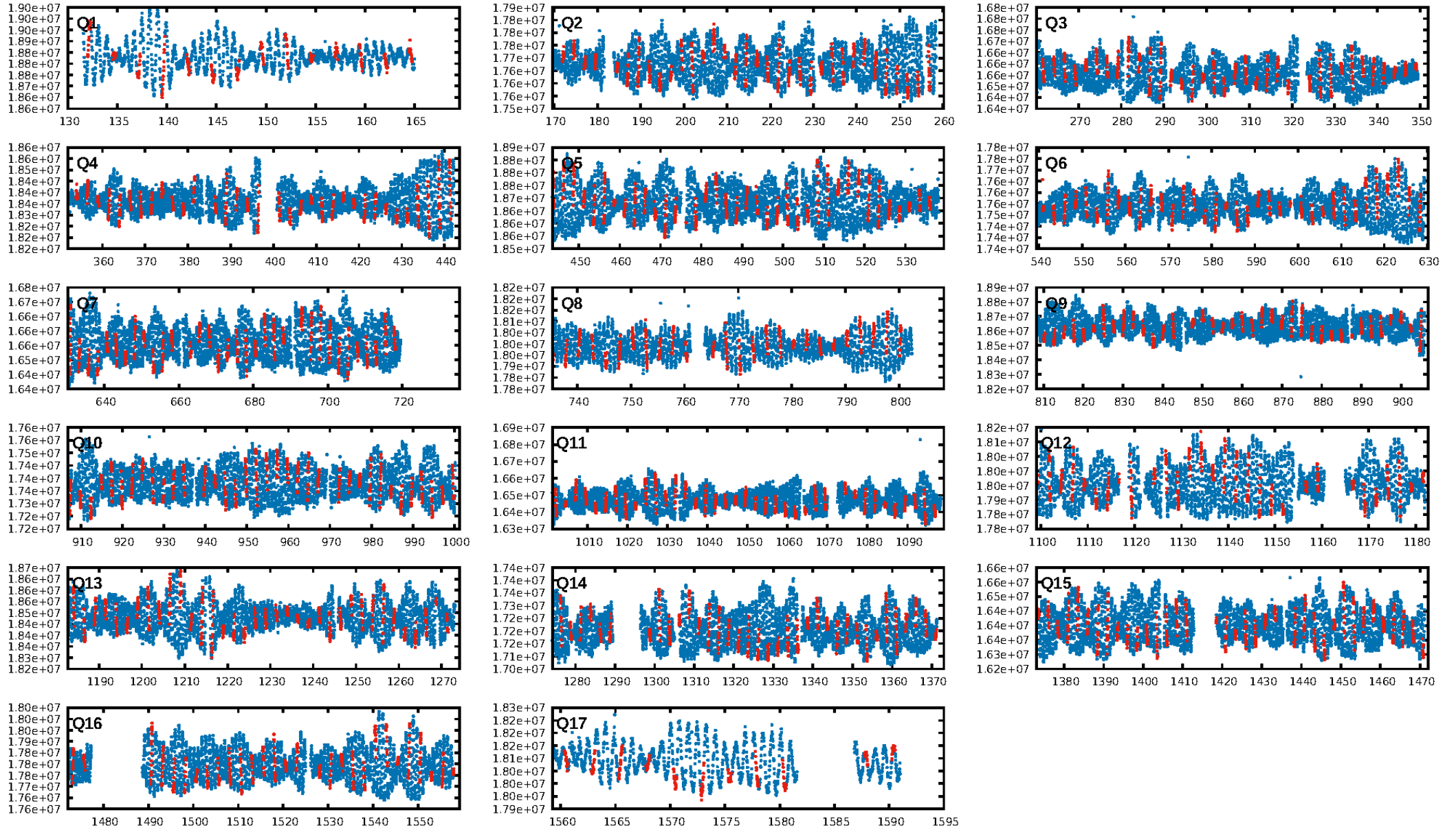
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.23e-21
RollingBand-fgt: 1.00 [510/510]
GhostDiagnostic-chr: -1.306
Centroid-sig: 21.4%
Centroid-so: 16.208 arcsec [1.17σ]
OotOffset-rm: 0.154 arcsec [0.34σ]
KicOffset-rm: 0.296 arcsec [0.66σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

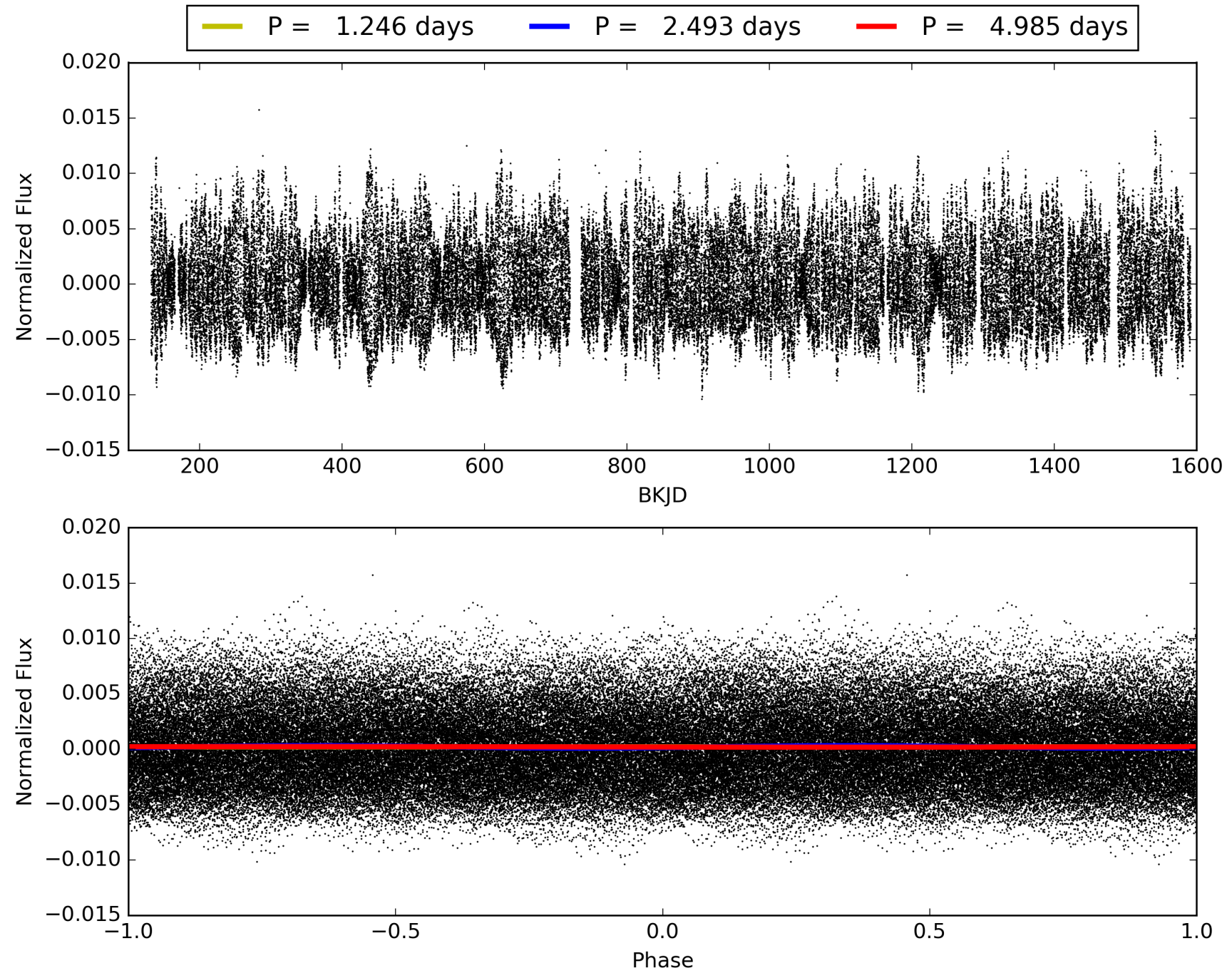
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:31:47 Z

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

TCE 005479304-01, PDC Light Curves

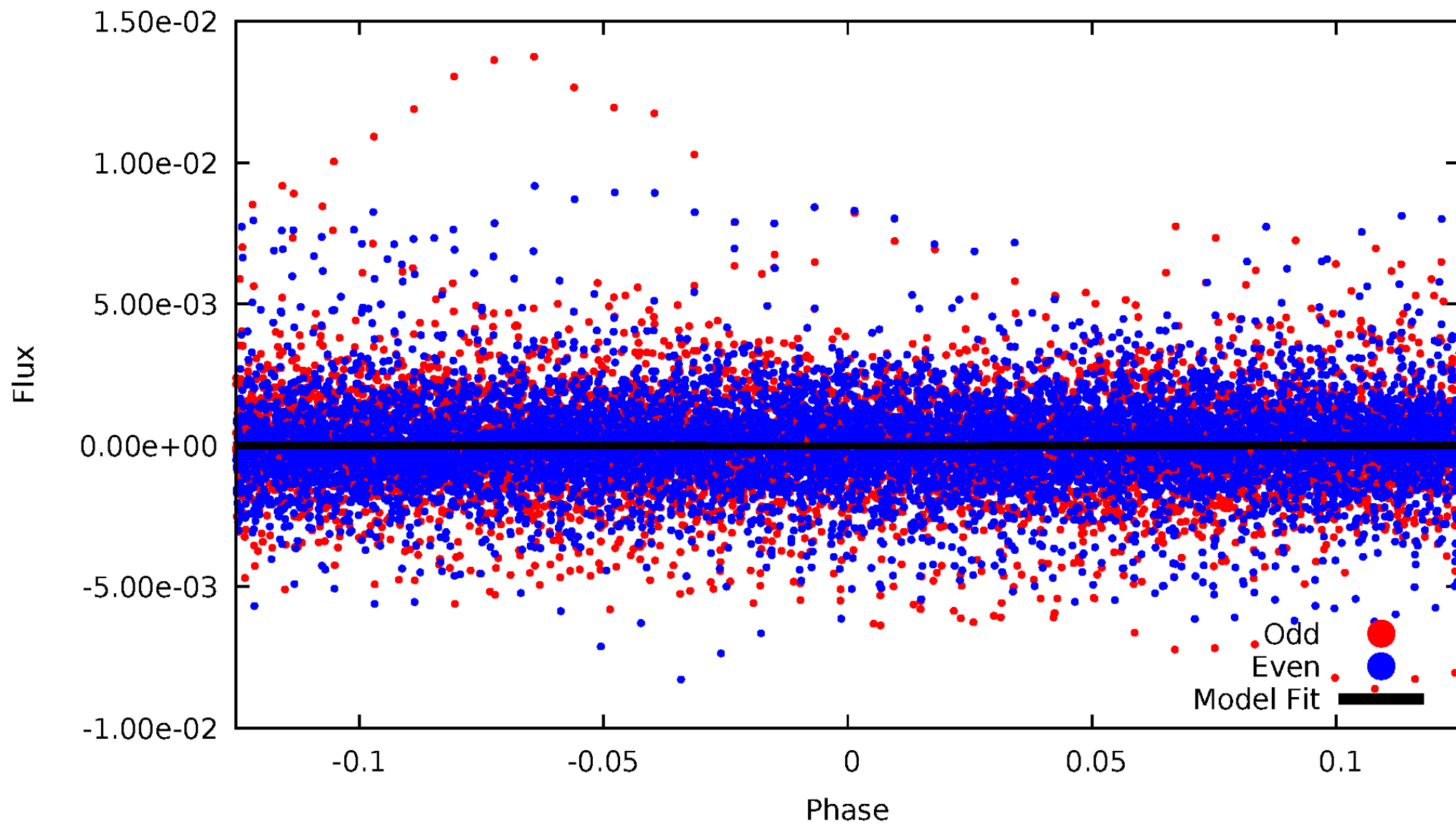


TCE 005479304-01



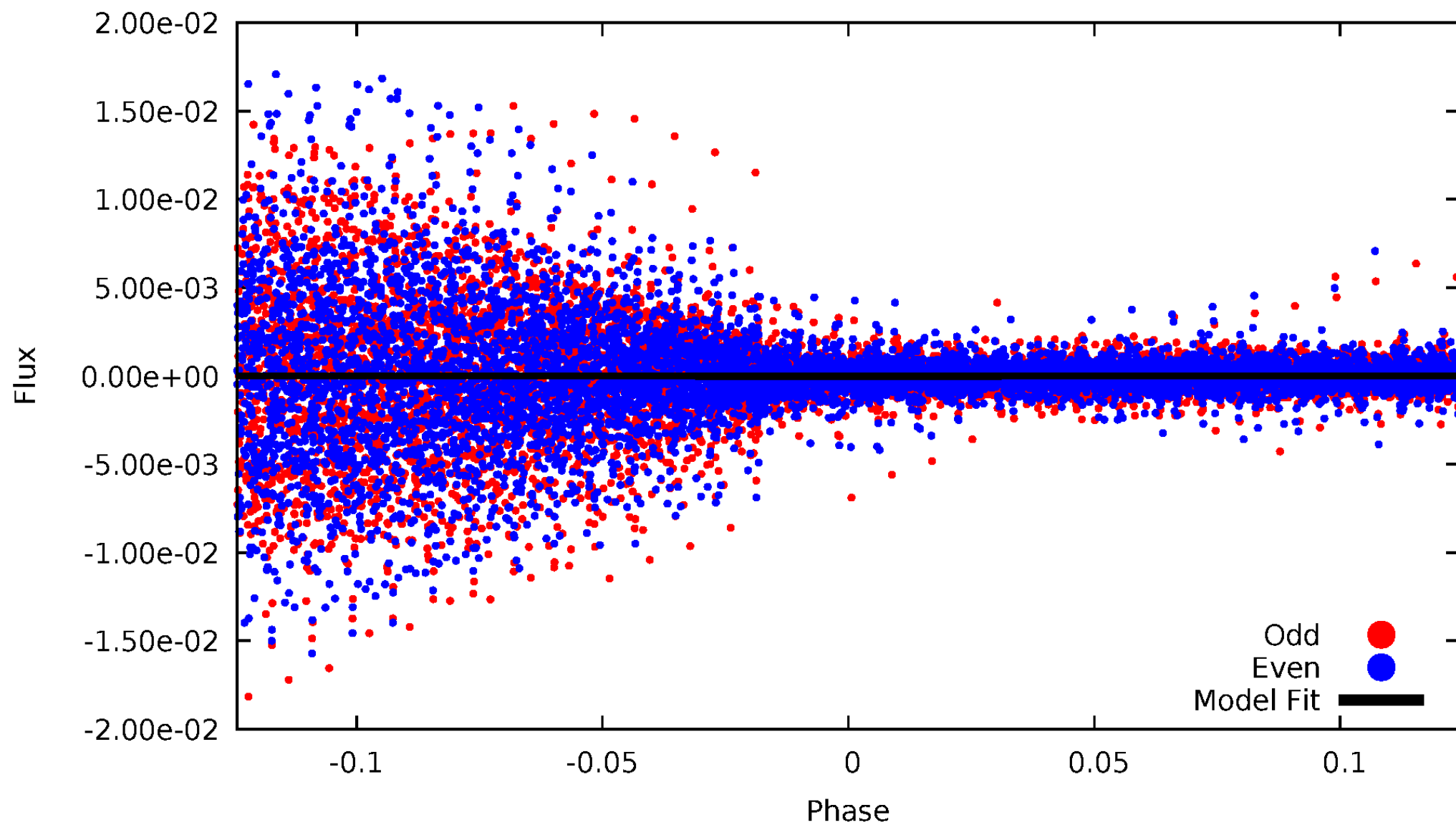
DV Odd/Even

TCE 005479304-01



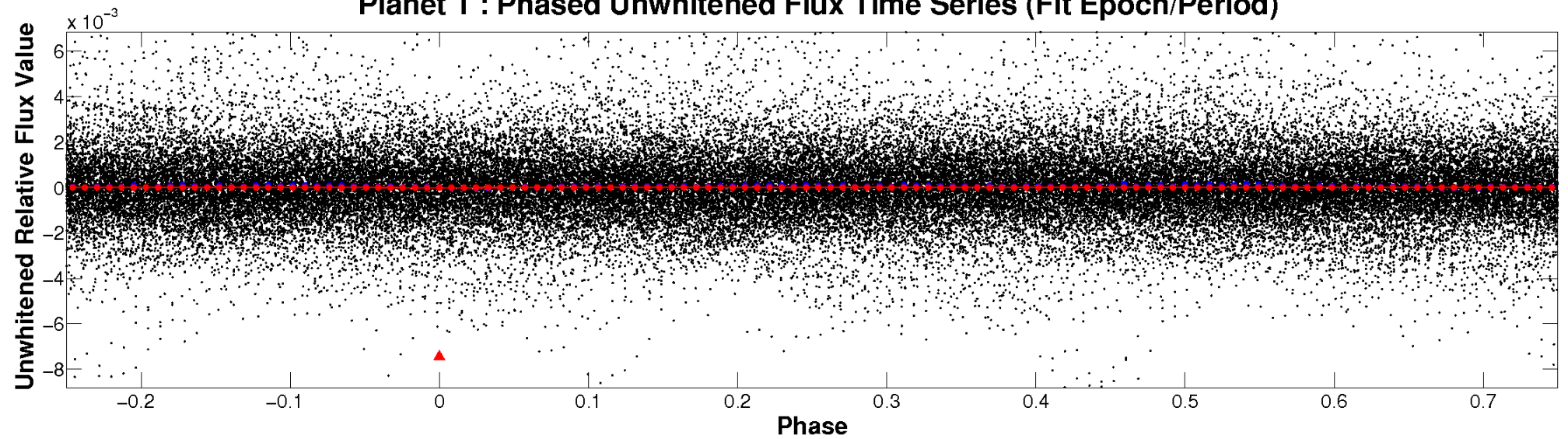
ALT Odd/Even

TCE 005479304-01

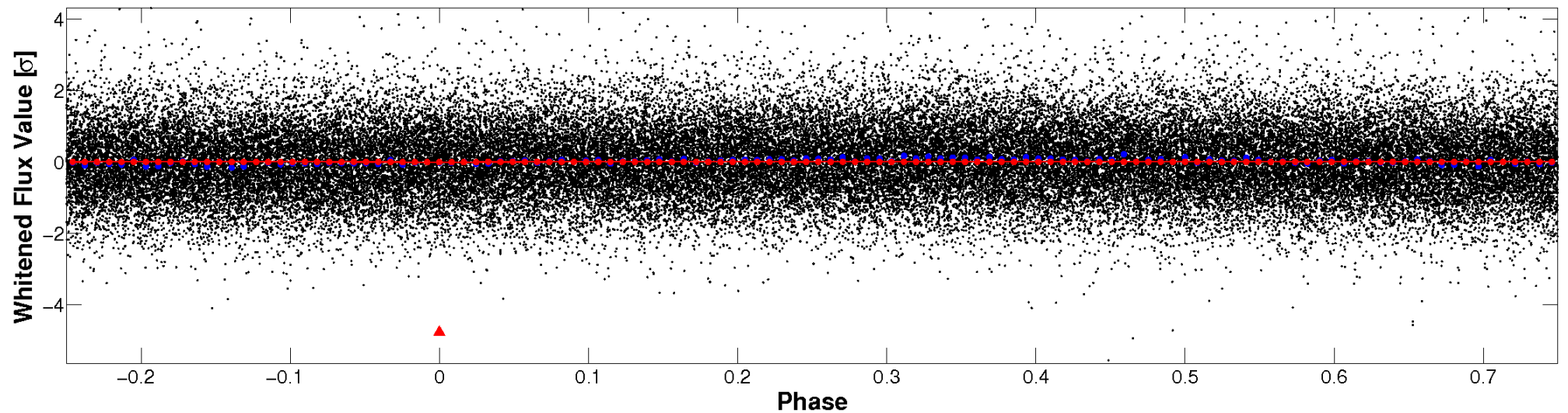


Non-Whitened Vs. Whitened Light Curve

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

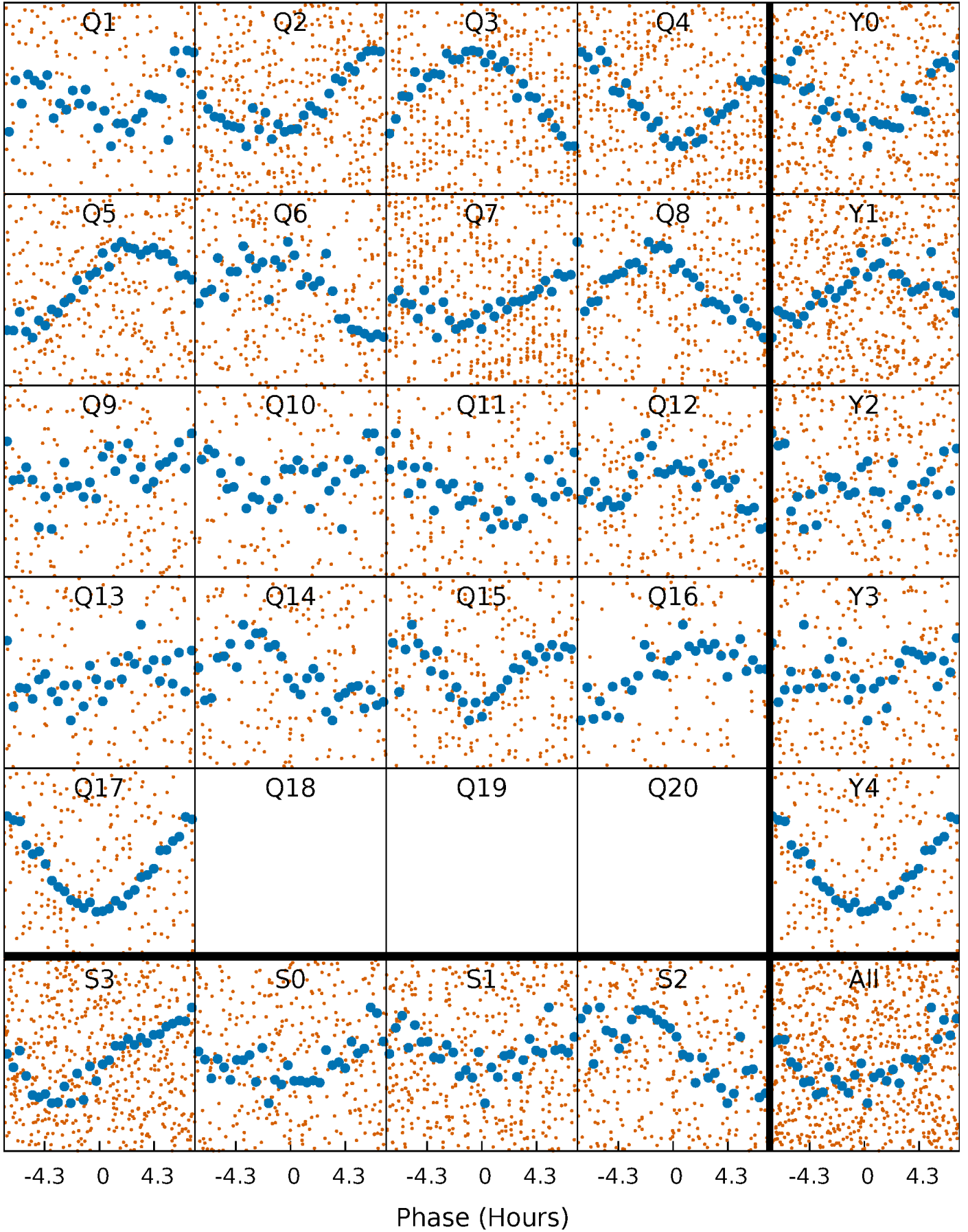


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



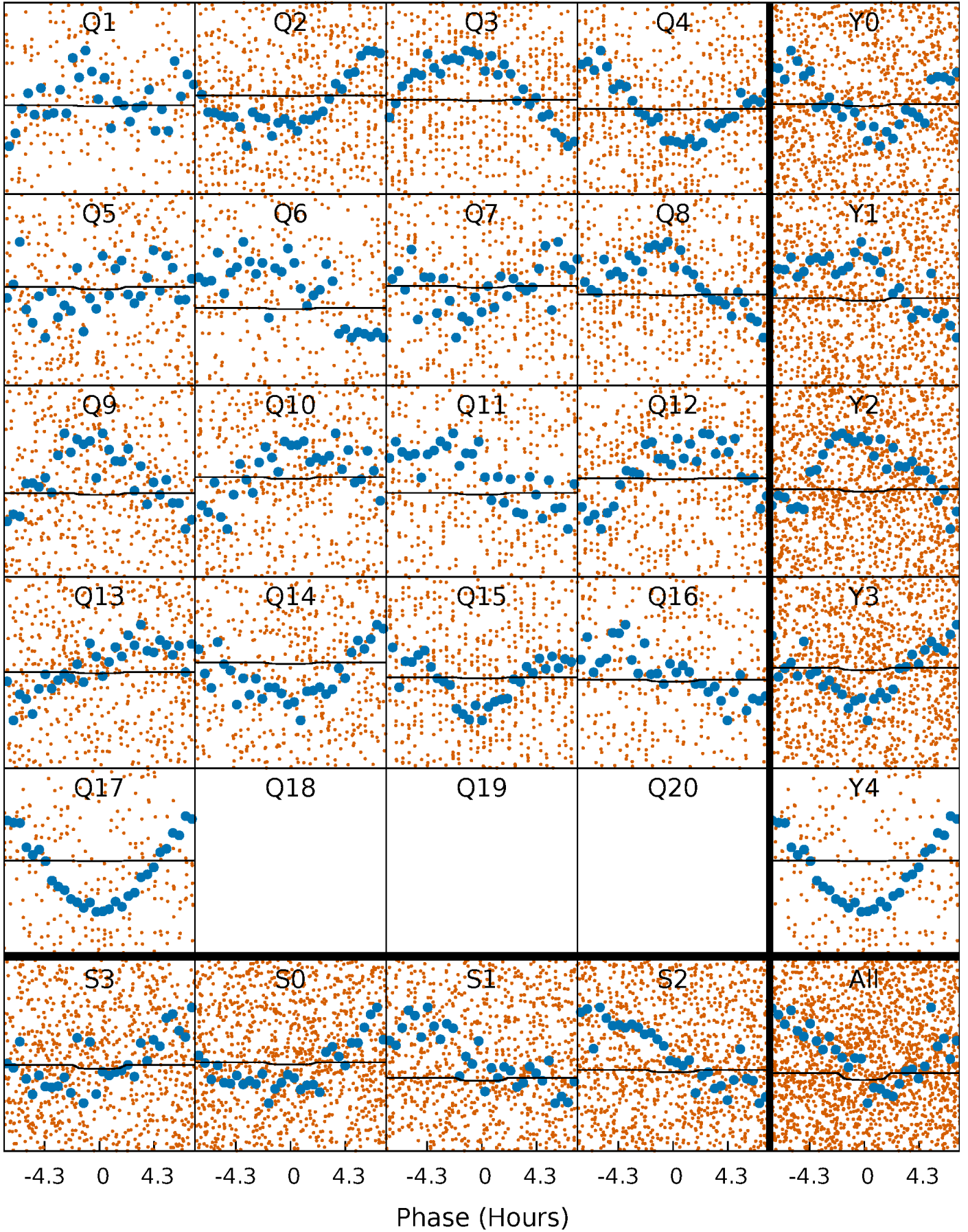
PDC Quarter-Phased Transit Curves

TCE 005479304-01 P= 2.492691 Days $T_0=132.164920$ (BKJD)



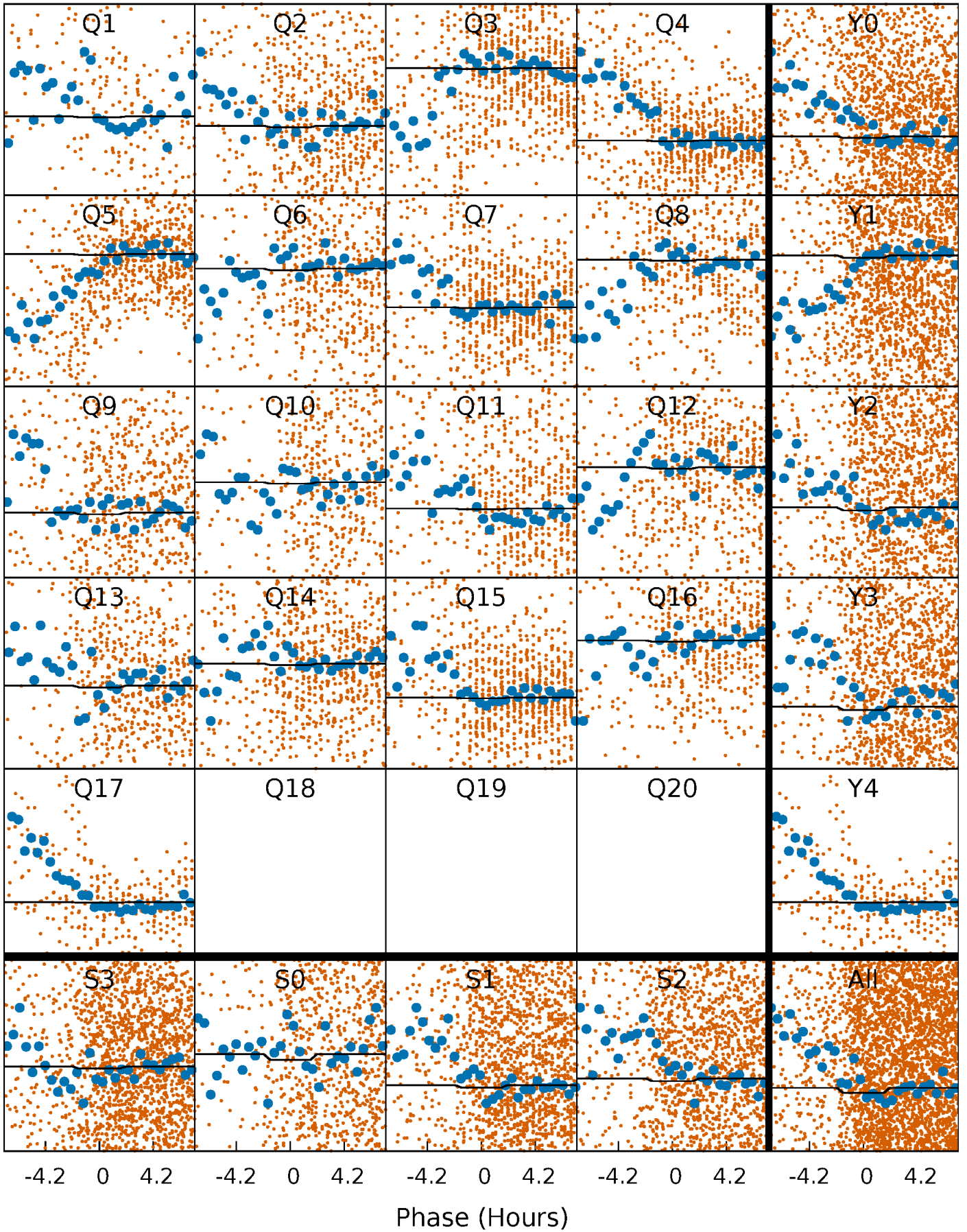
DV Quarter-Phased Transit Curves

TCE 005479304-01 P= 2.492691 Days $T_0=132.164920$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

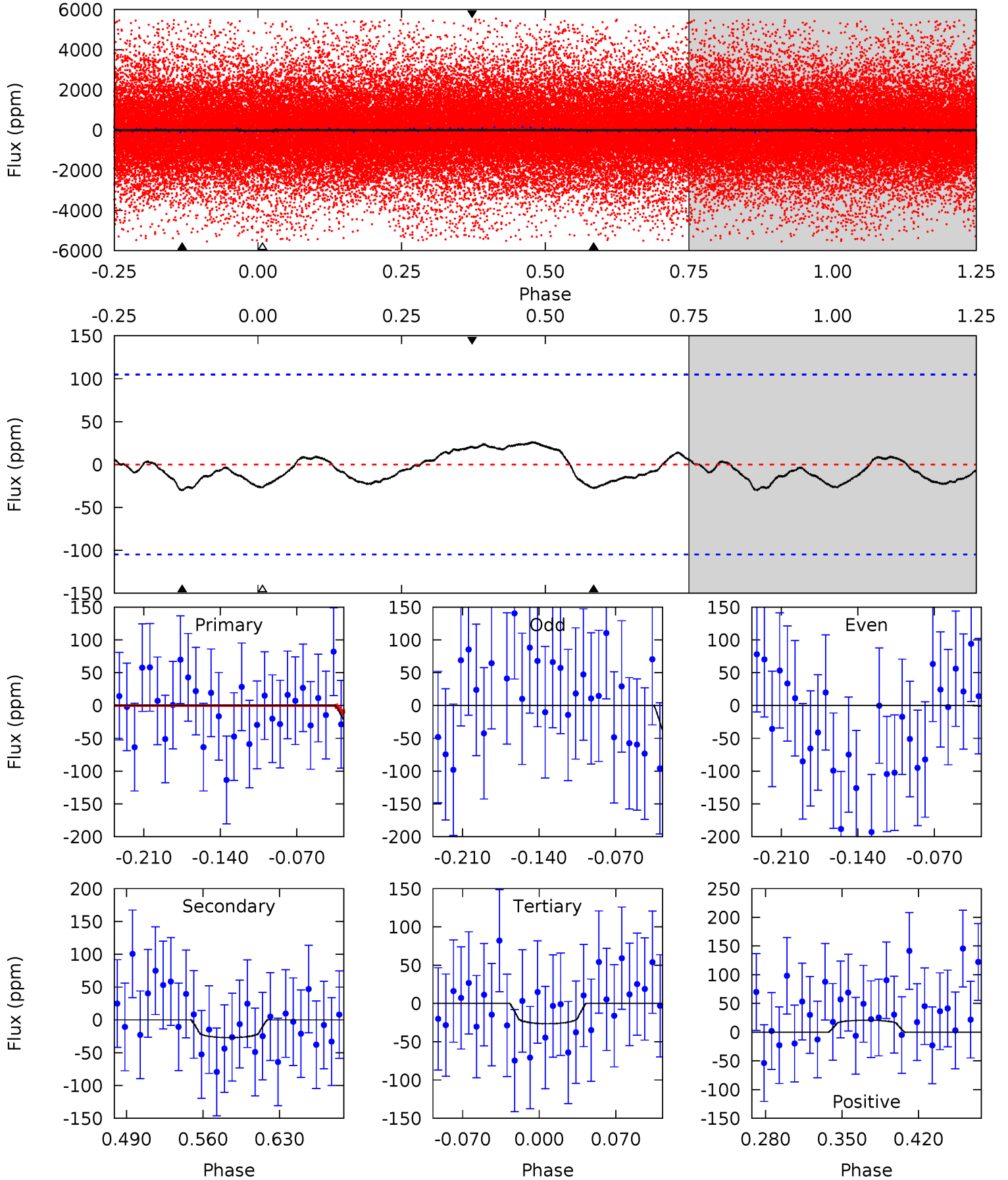
TCE 005479304-01 P= 2.492694 Days $T_0=132.165248$ (BKJD)



DV Model-Shift Uniqueness Test

005479304-01, P = 2.492691 Days, E = 129.672229 Days

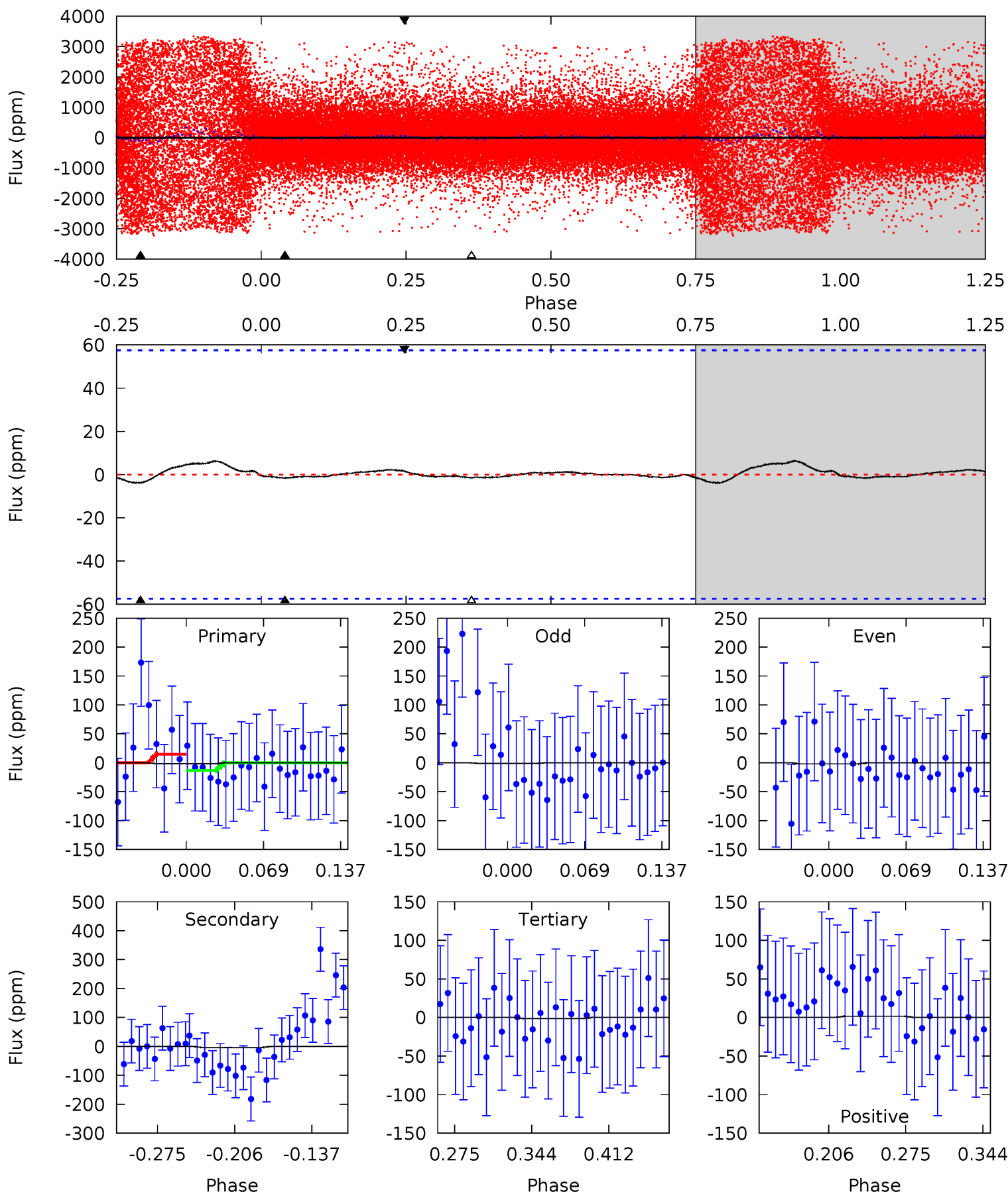
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.32	1.20	1.17	0.92	4.64	1.81	0.67	0.15	0.40	0.03	0.28	1.14	0.52	0.47	0.38



Alt Model-Shift Uniqueness Test

005479304-01, P = 2.492694 Days, E = 129.672554 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.13	0.31	0.12	0.13	4.64	1.82	0.13	0.01	0.01	0.19	0.18	0.04	0.26	0.62	0.05



Stellar Parameters For KIC 005479304

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6455^{+174}_{-232}	$4.410^{+0.065}_{-0.195}$	$-0.200^{+0.250}_{-0.300}$	$1.101^{+0.345}_{-0.138}$	$1.136^{+0.168}_{-0.152}$	$1.200^{+0.344}_{-0.642}$
	+3%/-4%	+1%/-4%	+125%/-150%	+31%/-13%	+15%/-13%	+29%/-53%
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 005479304-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-27 ± 23	$0.97^{+0.99}_{-0.66}$	2185^{+163}_{-103}	4979^{+4738}_{-1662}	17^{+165}_{-15}
Alt.	-4 ± 12	$0.91^{+0.86}_{-0.64}$	2187^{+154}_{-112}	3360^{+3197}_{-7539}	$2.122^{+53.223}_{-8.553}$

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 $A_{obs} \gg 1.0$

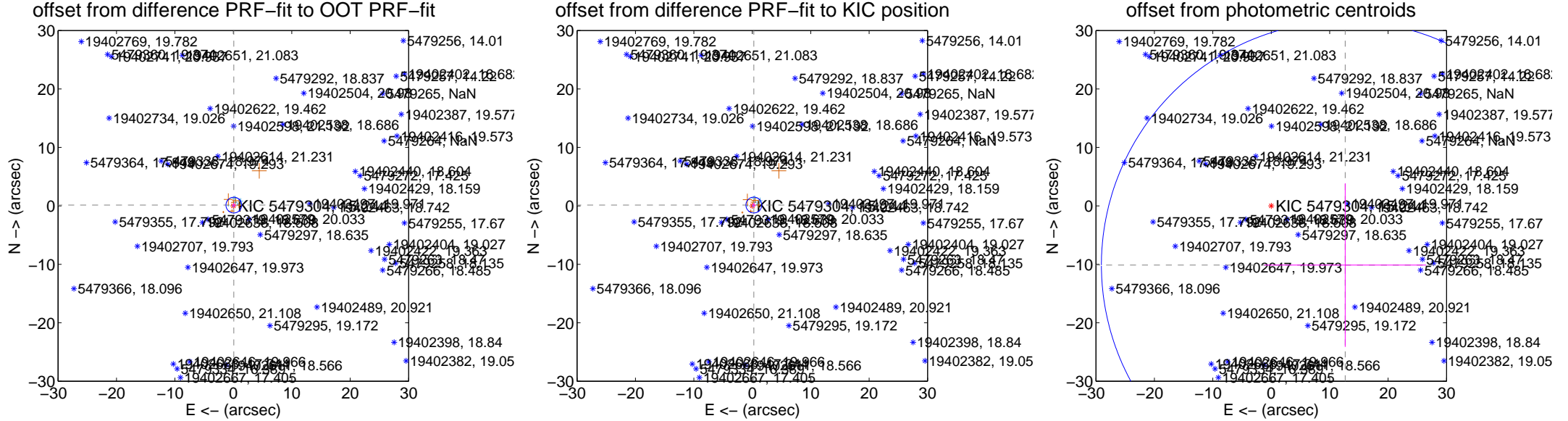
DV Centroid Data

Supplemental centroid analysis for 005479304-01. Kepler magnitude: 15.24. Transit SNR 0.44

There are 8 quarters with good PRF difference image offsets

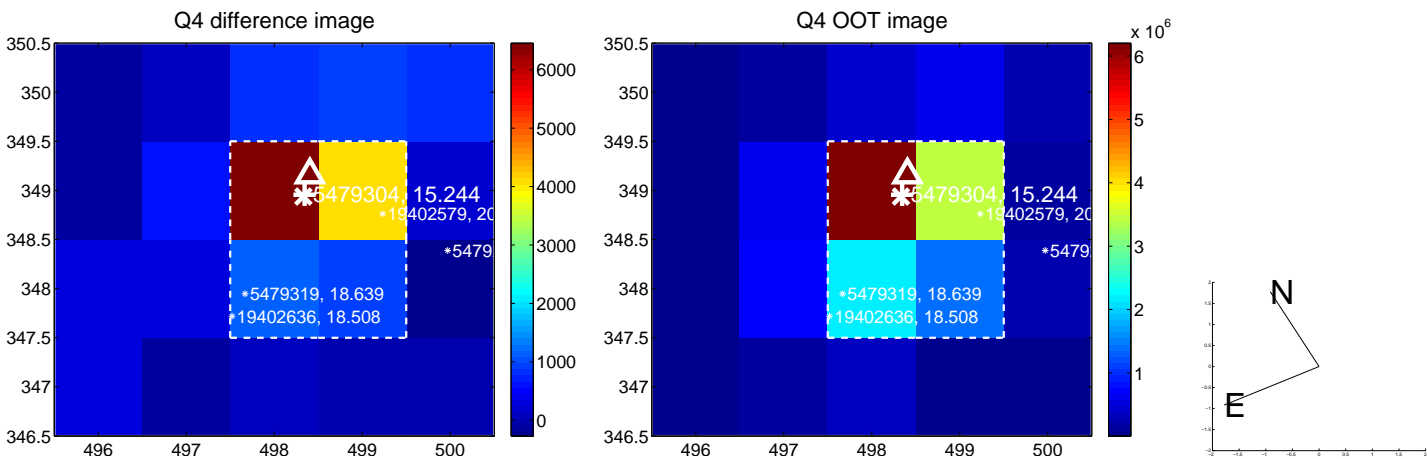
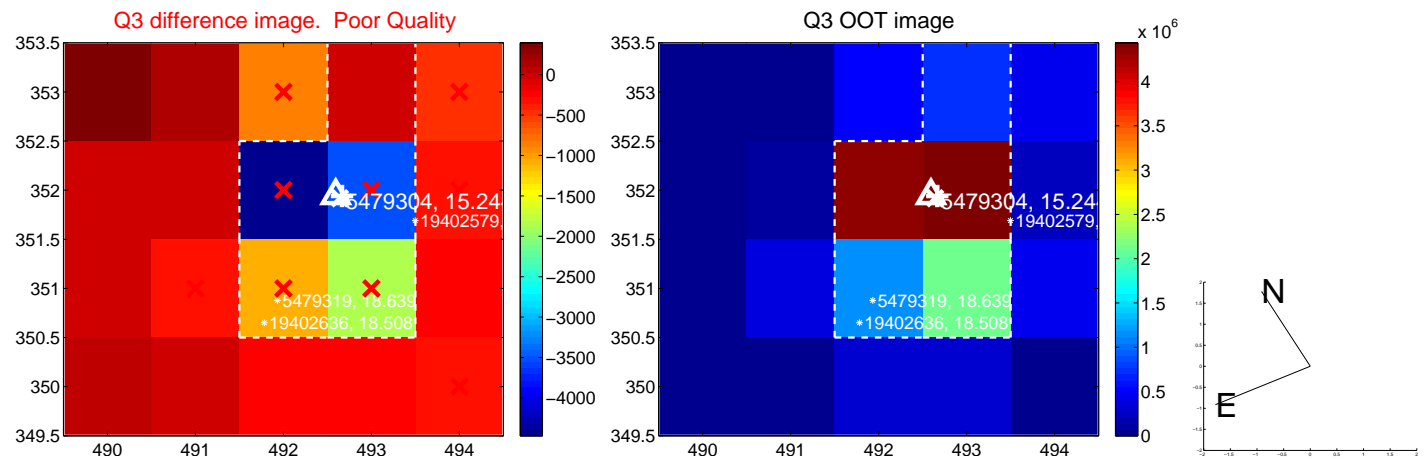
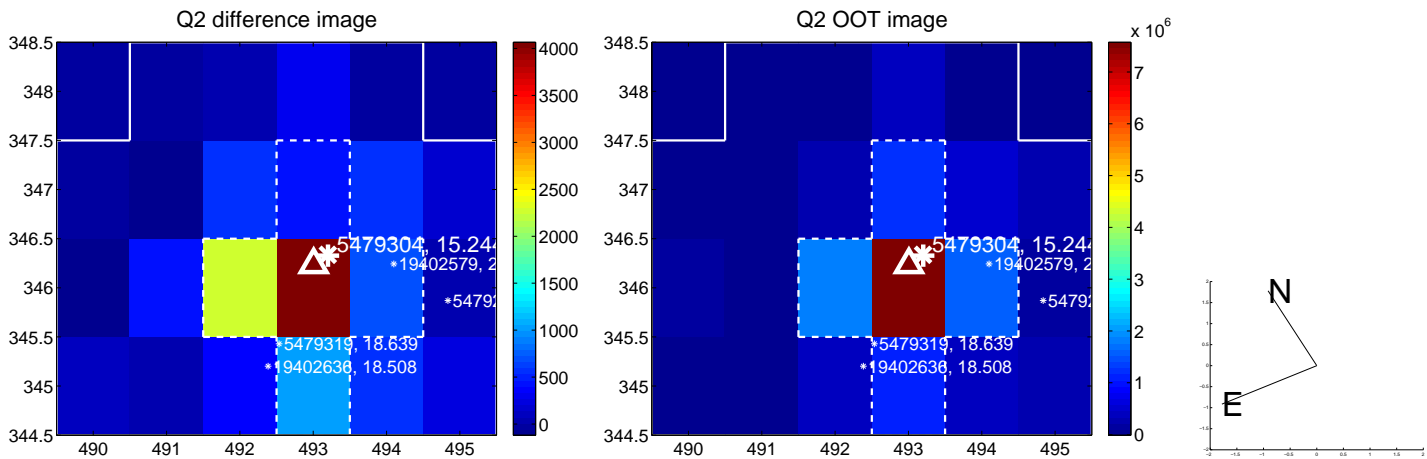
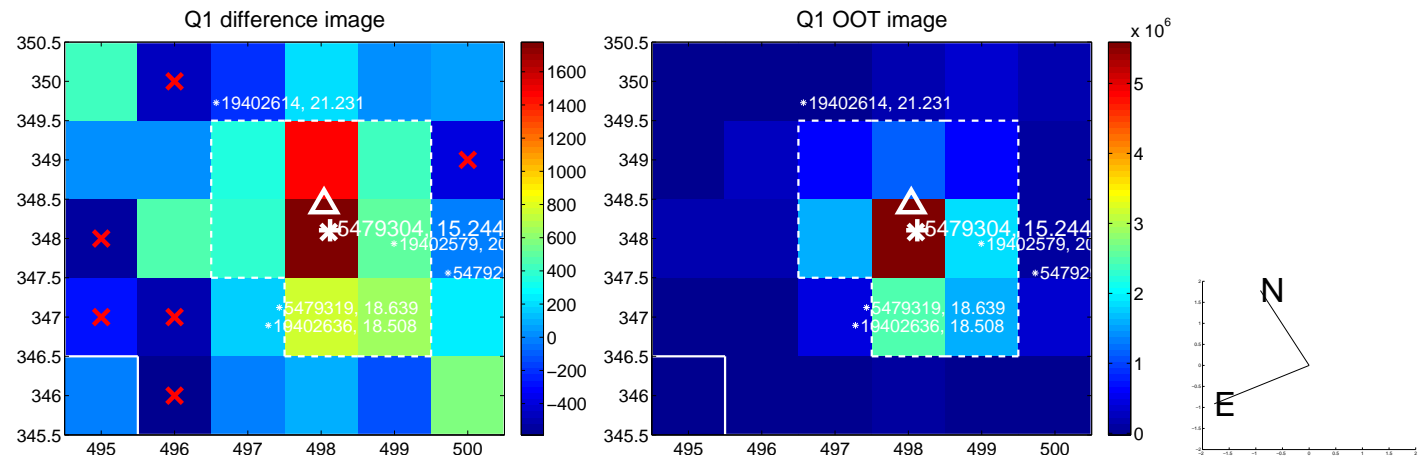
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.154 ± 0.449	0.34	-0.081 ± 0.317	0.130 ± 0.355
PRF-fit source offset from KIC position	0.296 ± 0.451	0.66	-0.259 ± 0.330	0.142 ± 0.373
photometric centroid source offset	16.21 ± 13.91	1.17	-12.66 ± 13.85	-10.13 ± 14.00

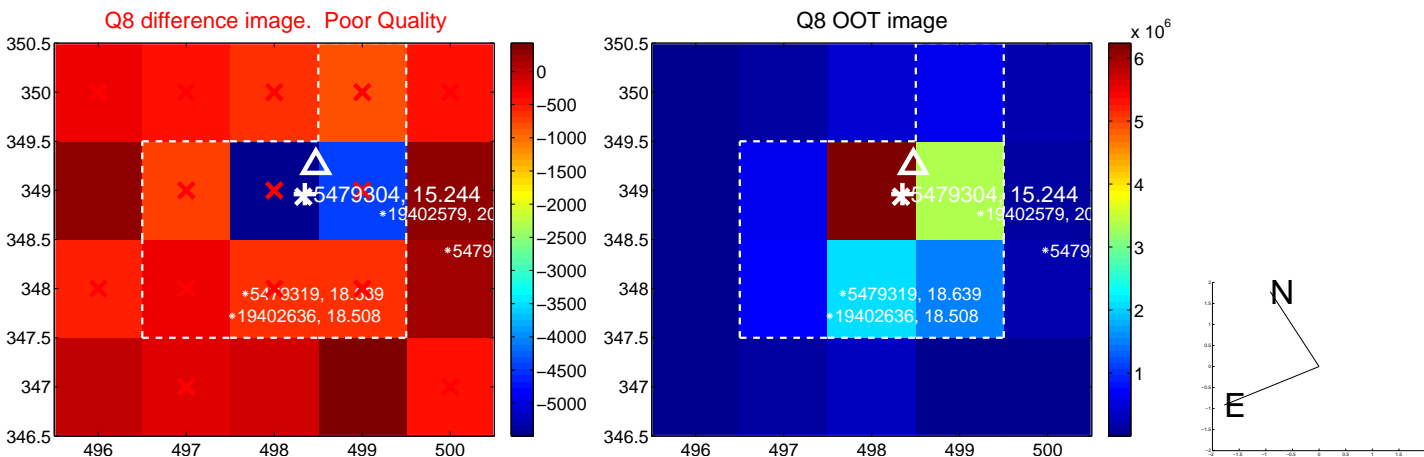
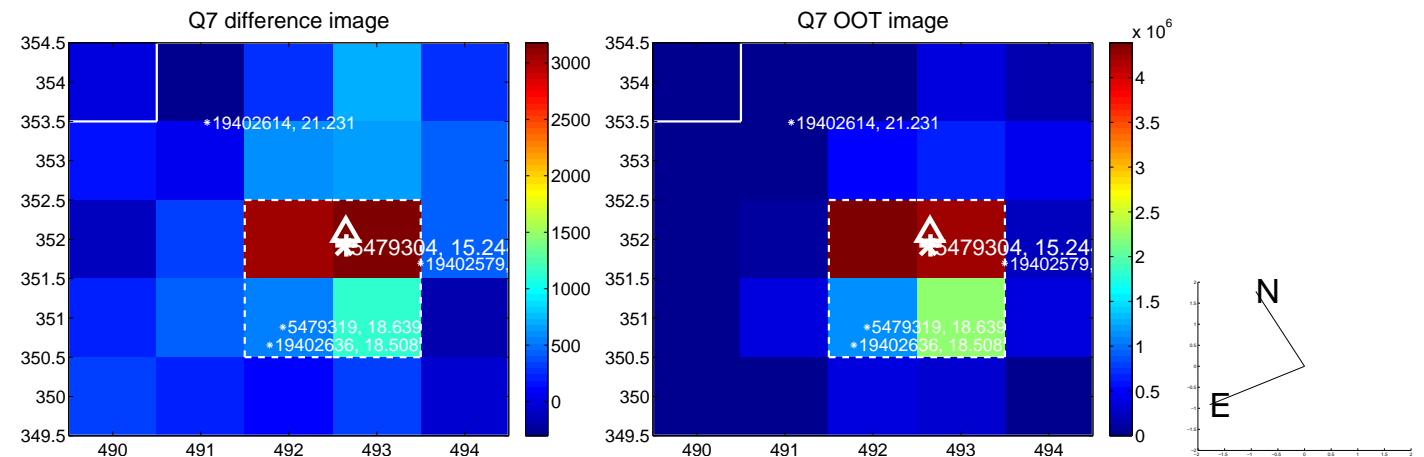
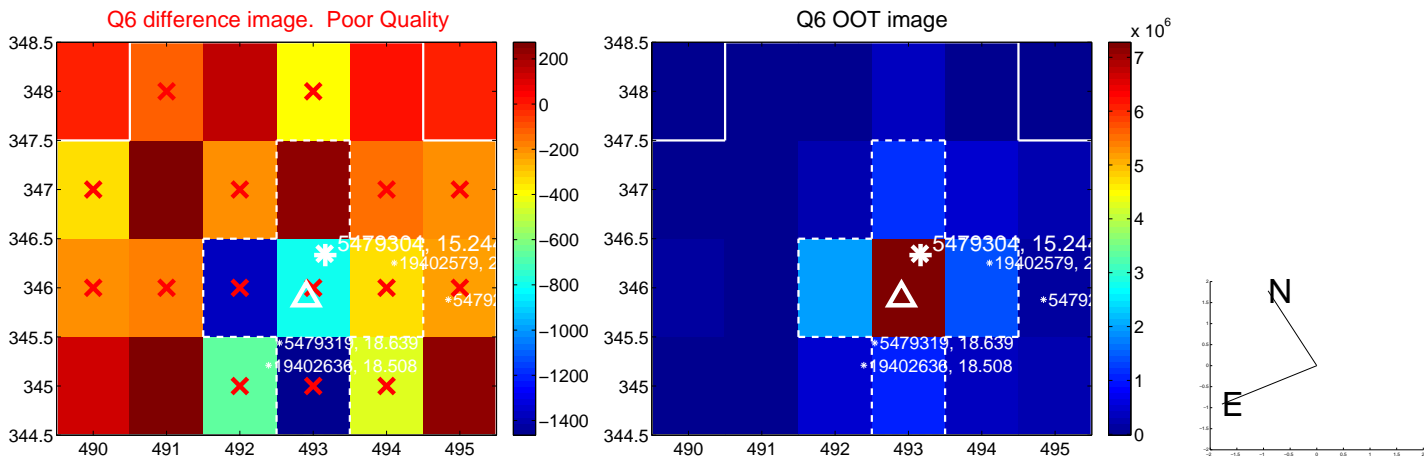
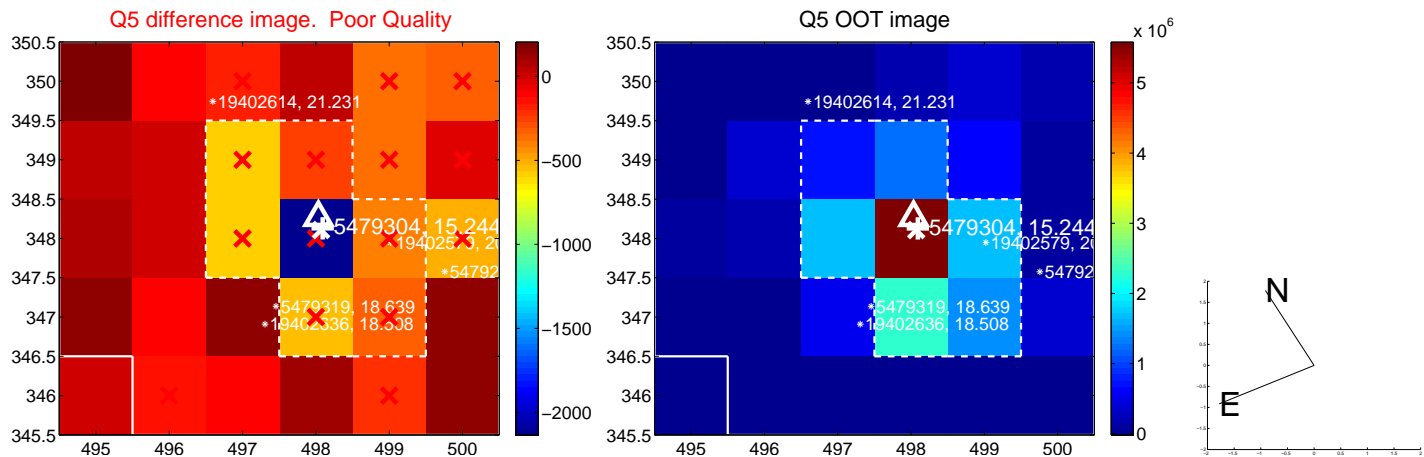


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

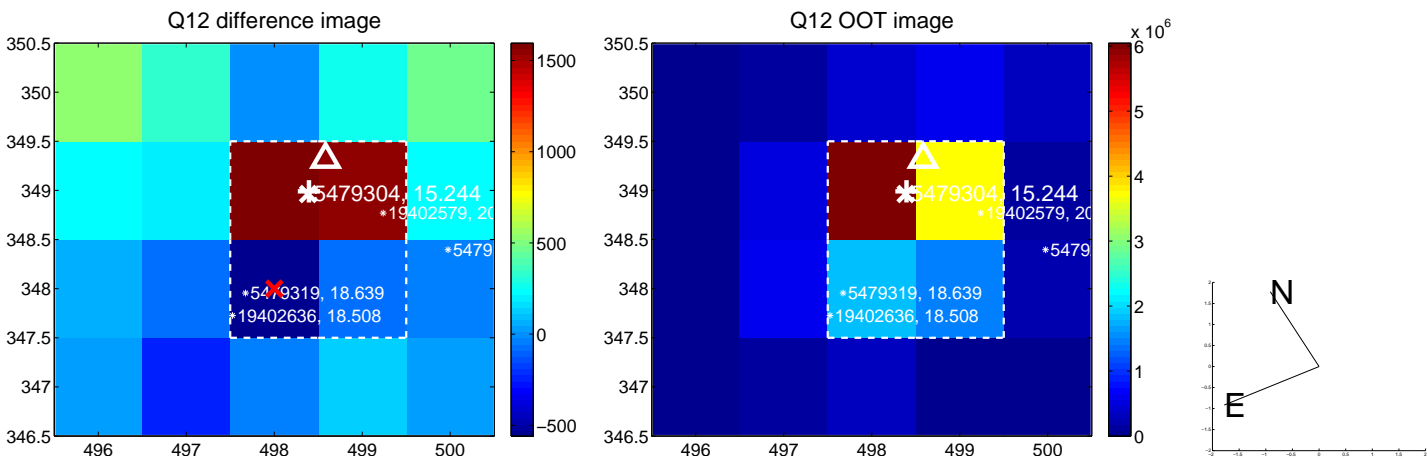
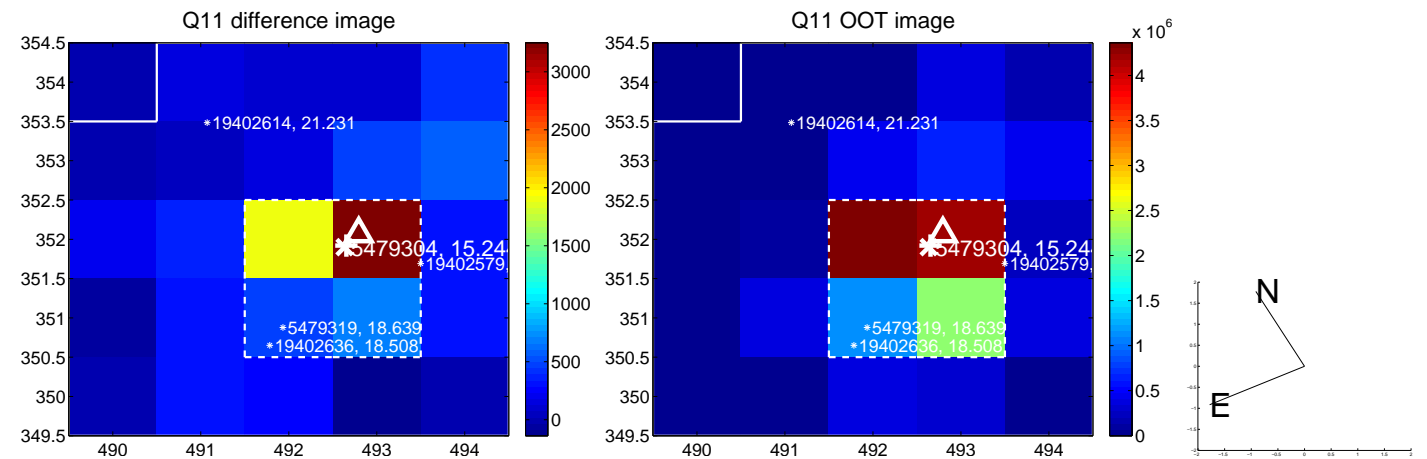
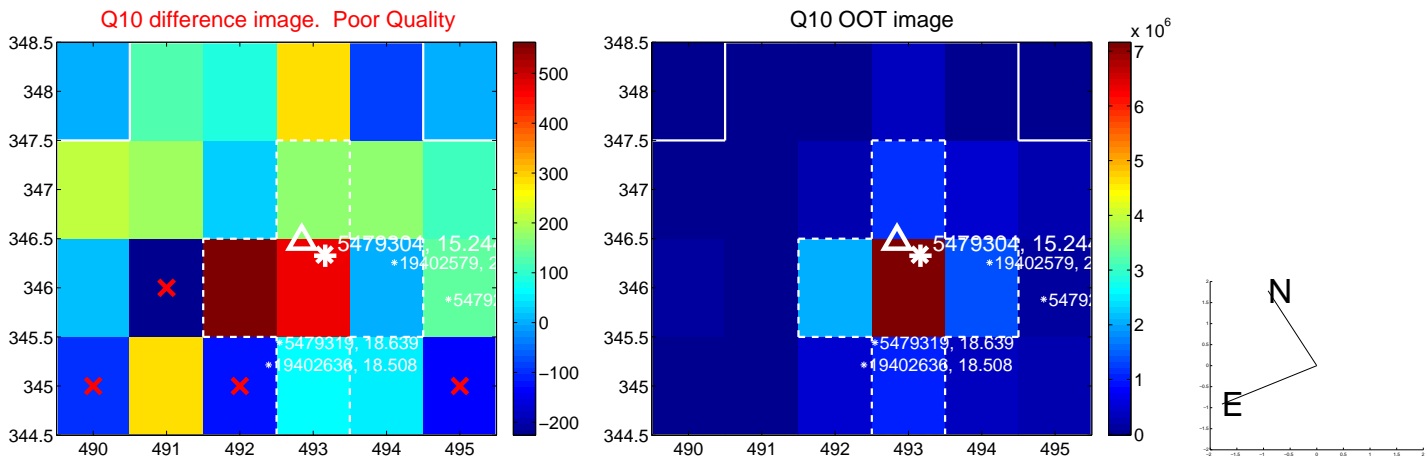
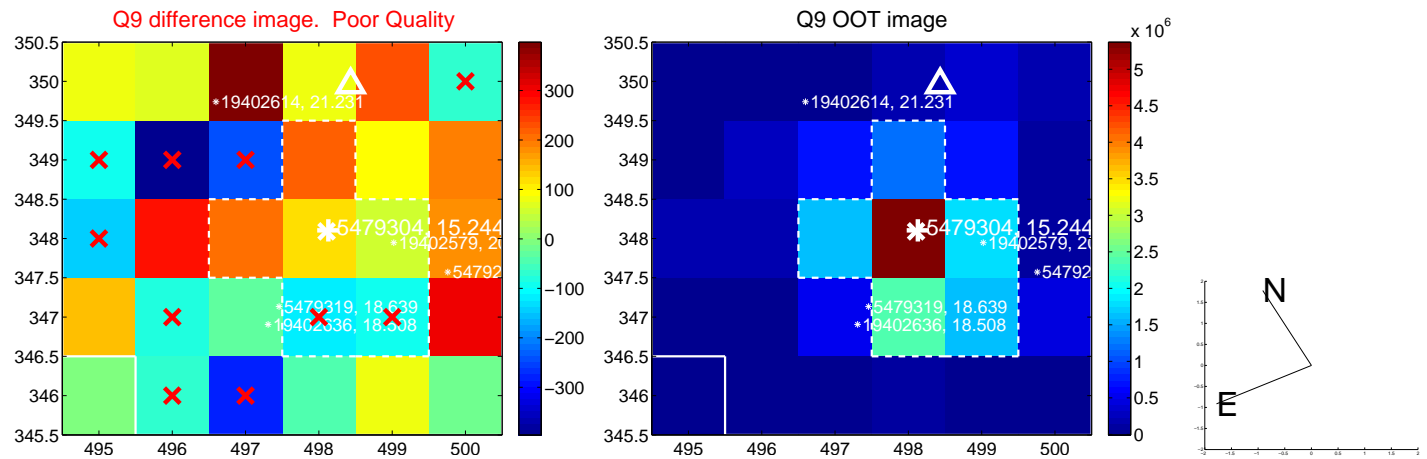
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



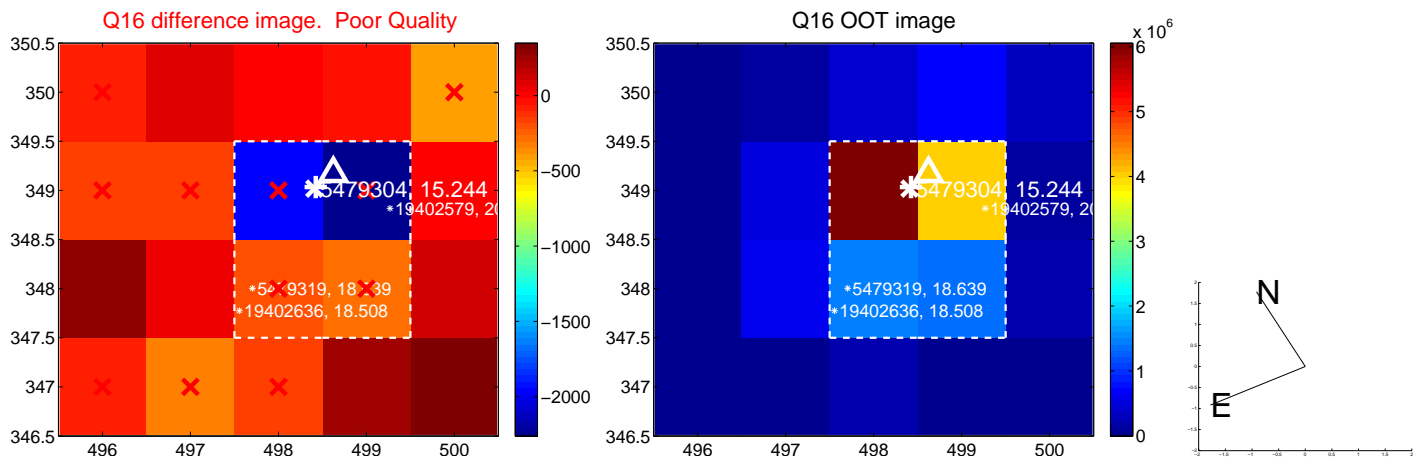
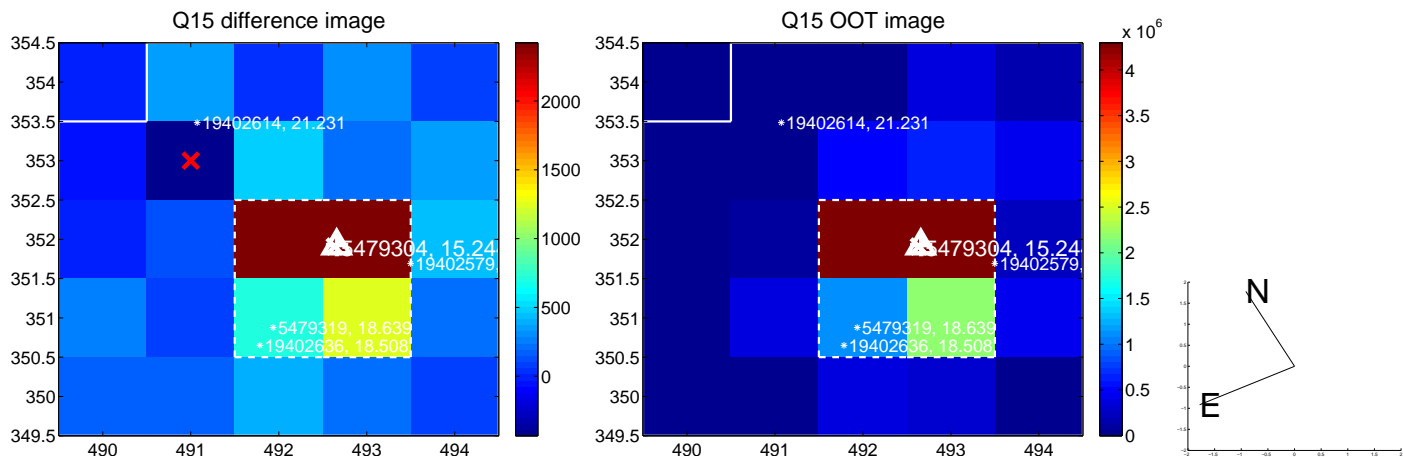
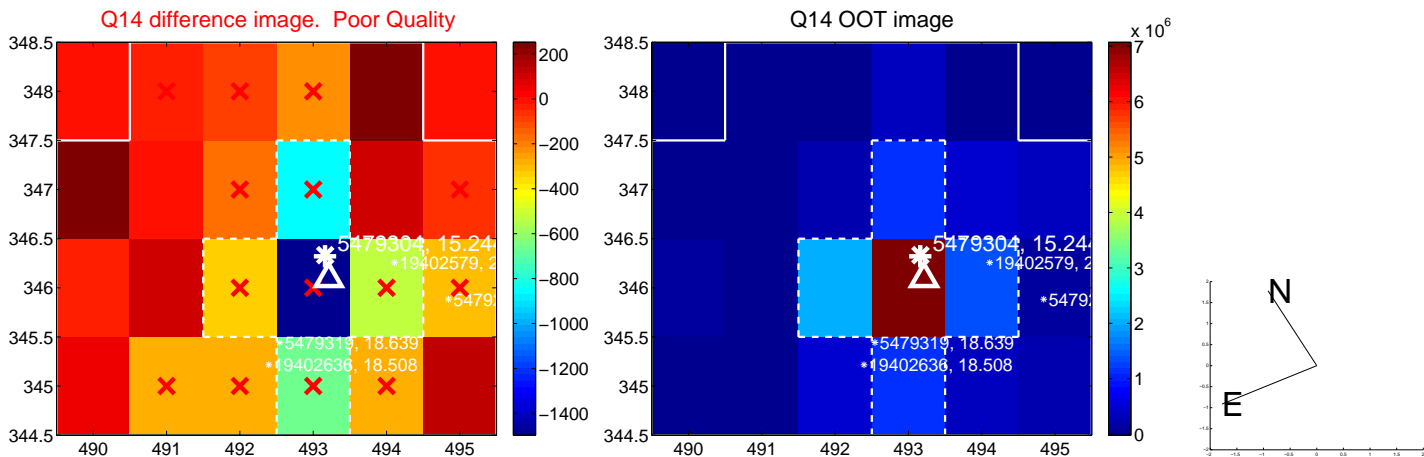
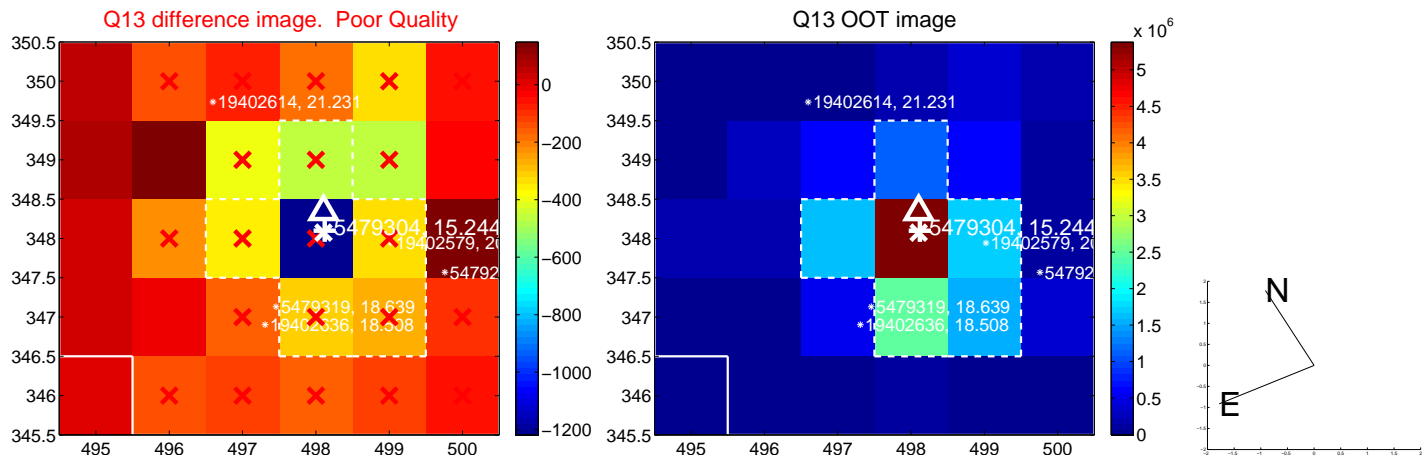
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



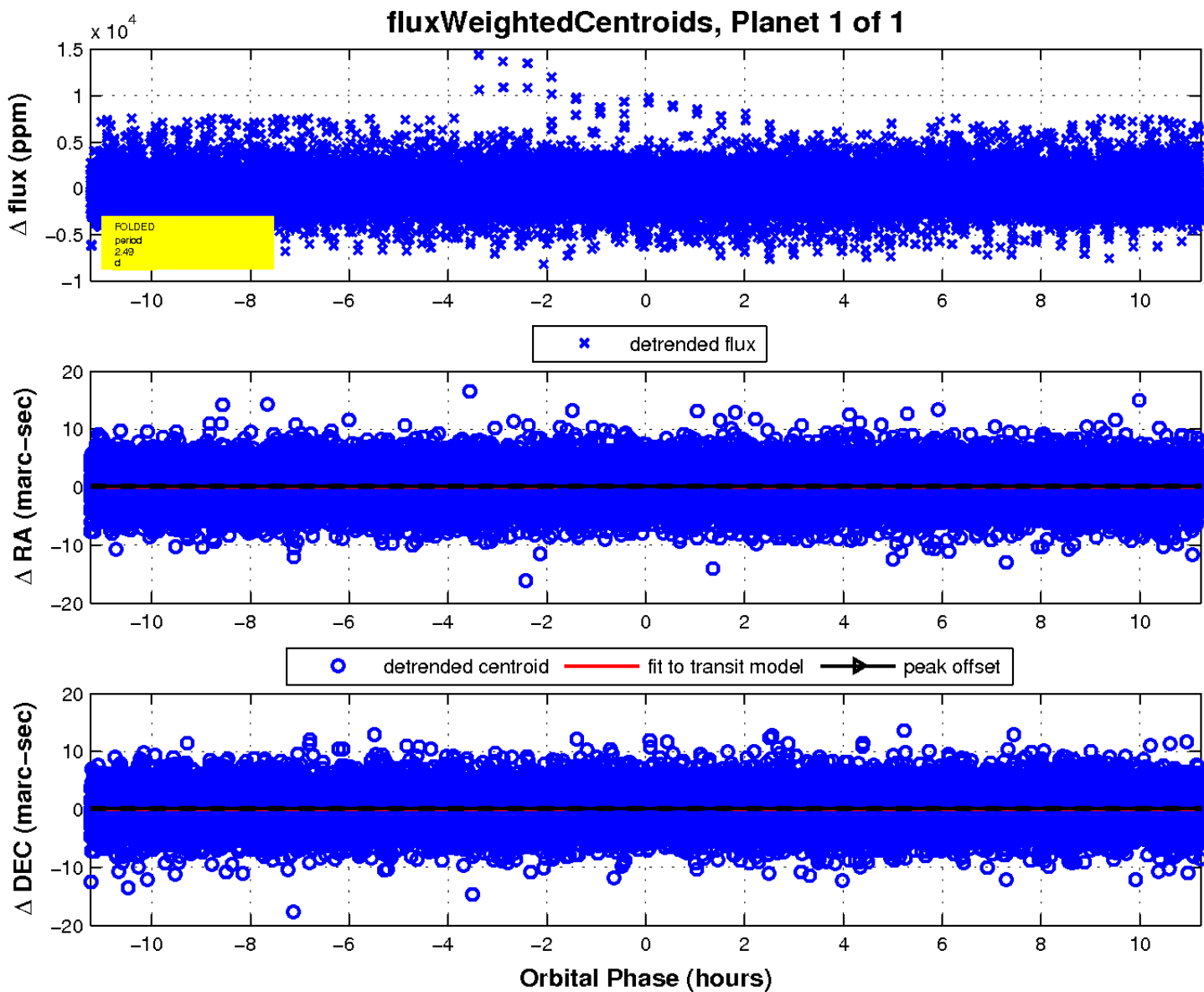
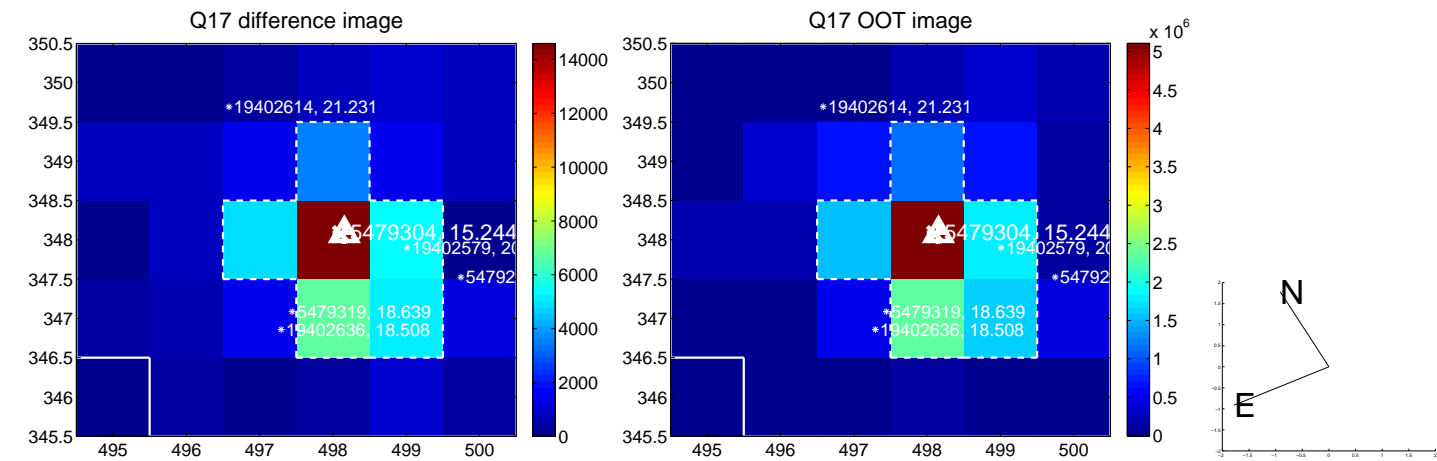
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

