

KIC 004953262

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})
004953262-01	OBS	5110.01	105.591090	192.299535	316.3	2.198	7.5	7.5	4.38	4869	8.36	47.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004953262-01	OBS	FP	0.23	1	0	0	0	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.

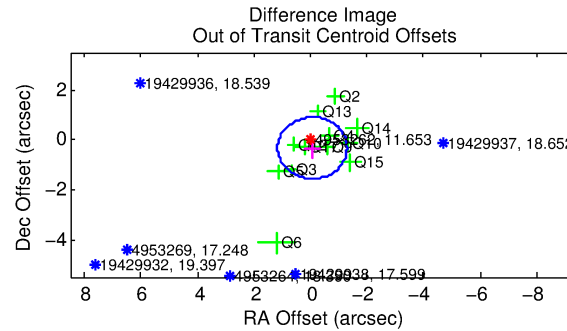
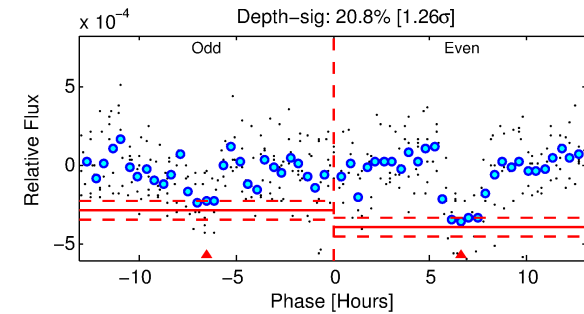
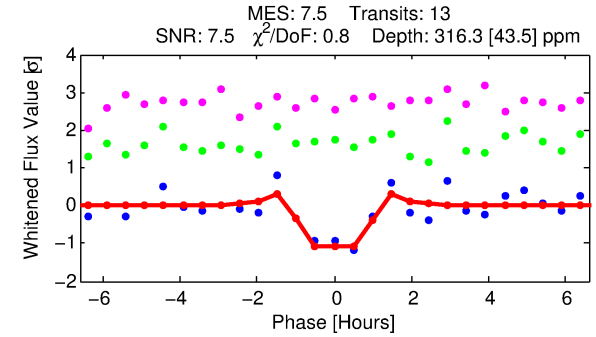
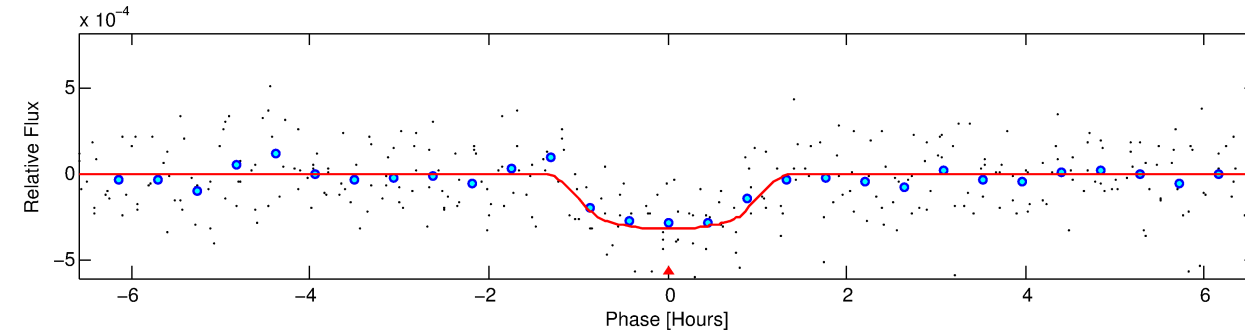
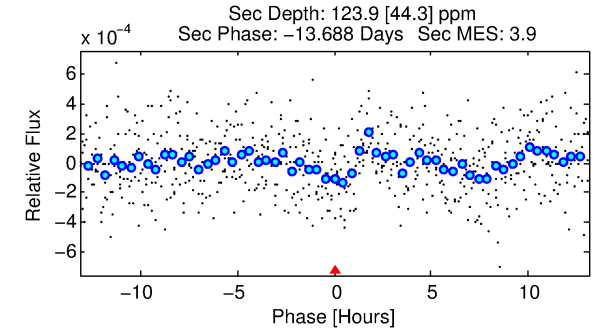
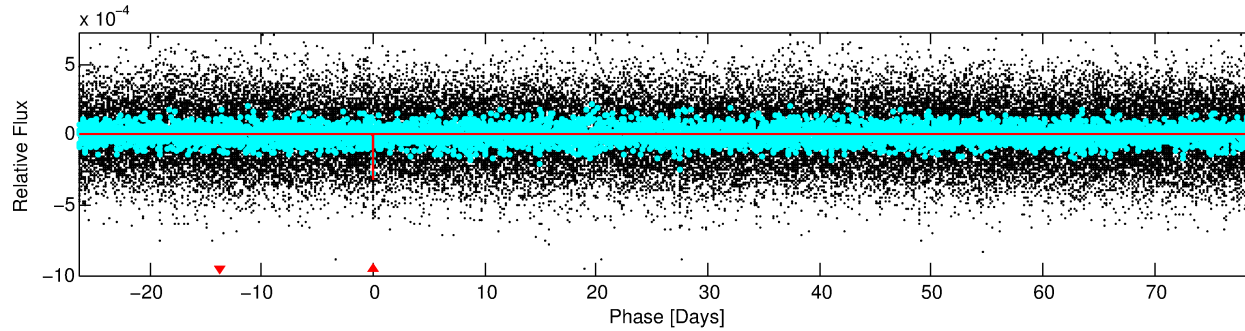
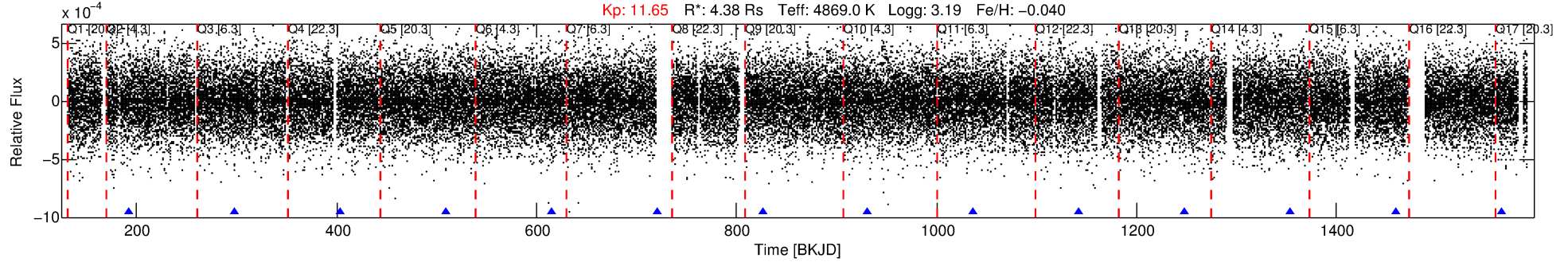
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004953262-01

No Significant Match Found

DV One-Page Summary

KIC: 4953262 Candidate: 1 of 1 Period: 105.591 d
KOI: K05110.01 Corr: 0.968



DV Fit Results:

Period = 105.59109 [0.00058] d
Epoch = 192.2995 [0.0046] BKJD
Rp/R* = 0.0175 [0.0182]
a/R* = 267.83 [958.99]
b = 0.71 [2.58]
Seff = 47.68 [5.01]
Teff = 670 [18] K
Rp = 8.36 [8.76] Re
a = 0.4504 [0.0359] AU
Ag = 197.92 [418.52] [0.47σ]
Teffp = 3886 [2053] K [1.57σ]

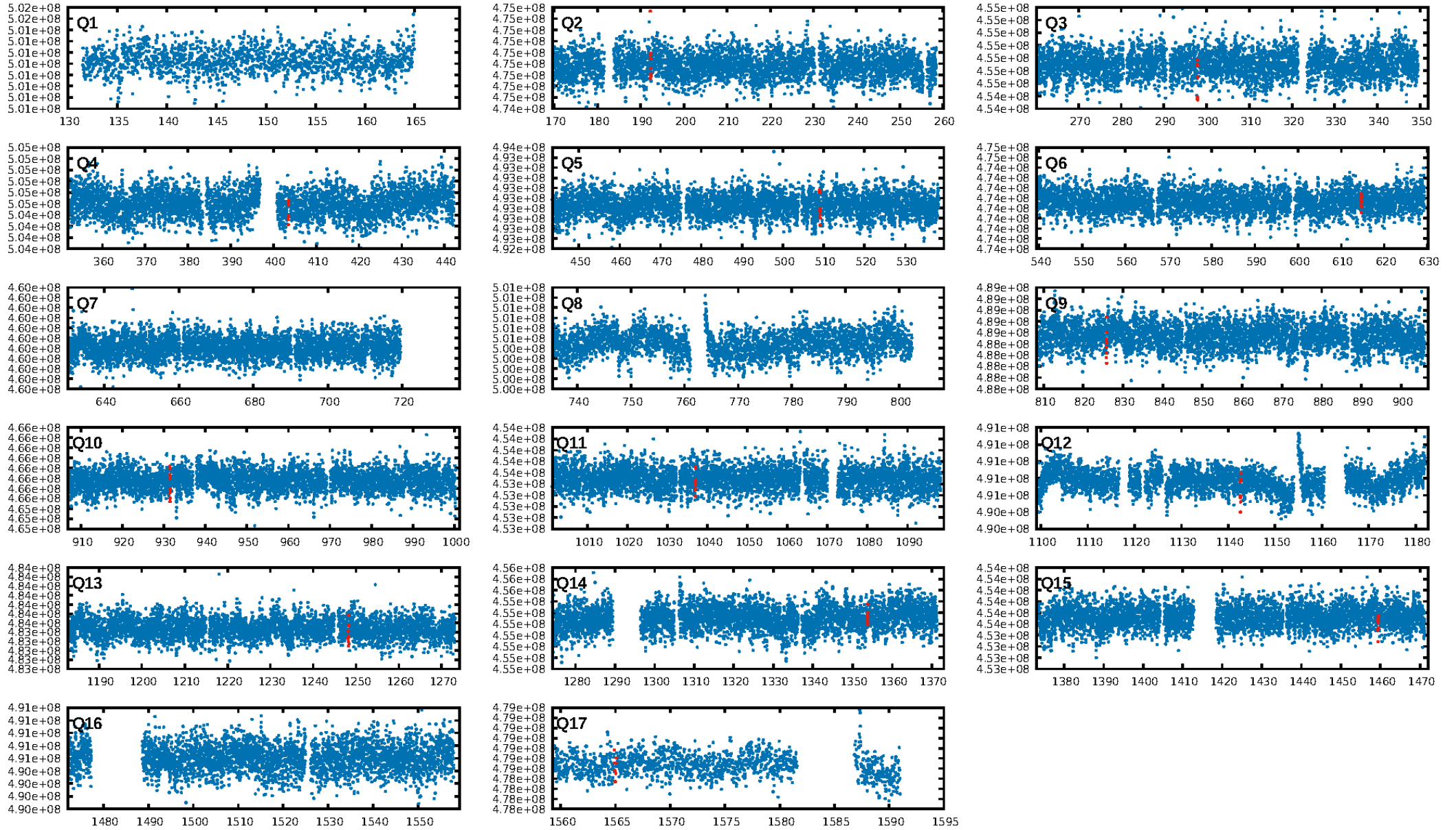
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 65.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.16e-12
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 1.651
Centroid-sig: 43.8%
Centroid-so: 0.590 arcsec [1.11σ]
OotOffset-rm: 0.337 arcsec [0.82σ]
KicOffset-rm: 0.594 arcsec [1.53σ]
OotOffset-st: 4/2/2/4 [12]
KicOffset-st: 4/2/2/4 [12]
DiffImageQuality-fgm: 0.92 [11/12]
DiffImageOverlap-fno: 1.00 [13/13]

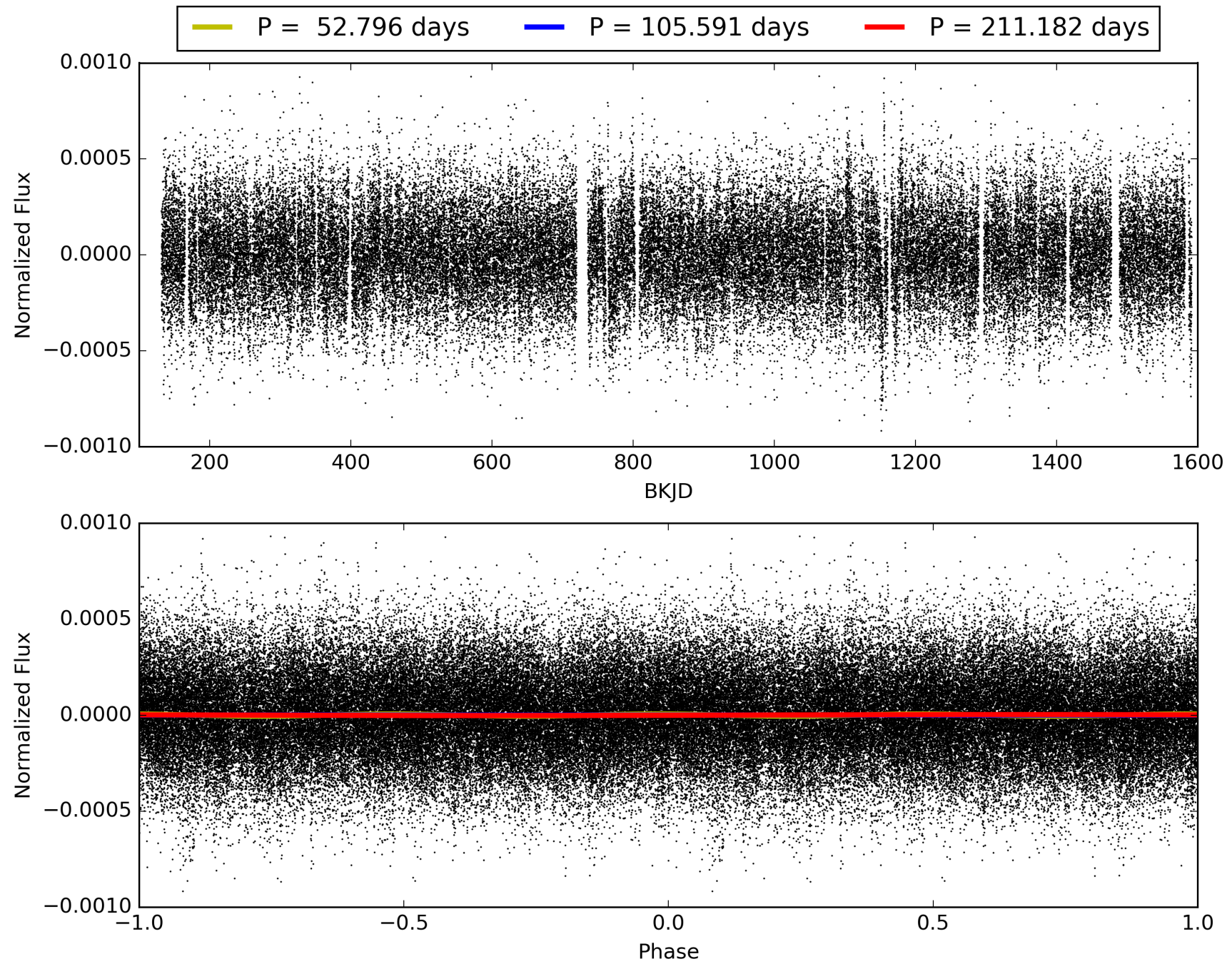
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:32:28 Z

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

TCE 004953262-01, PDC Light Curves

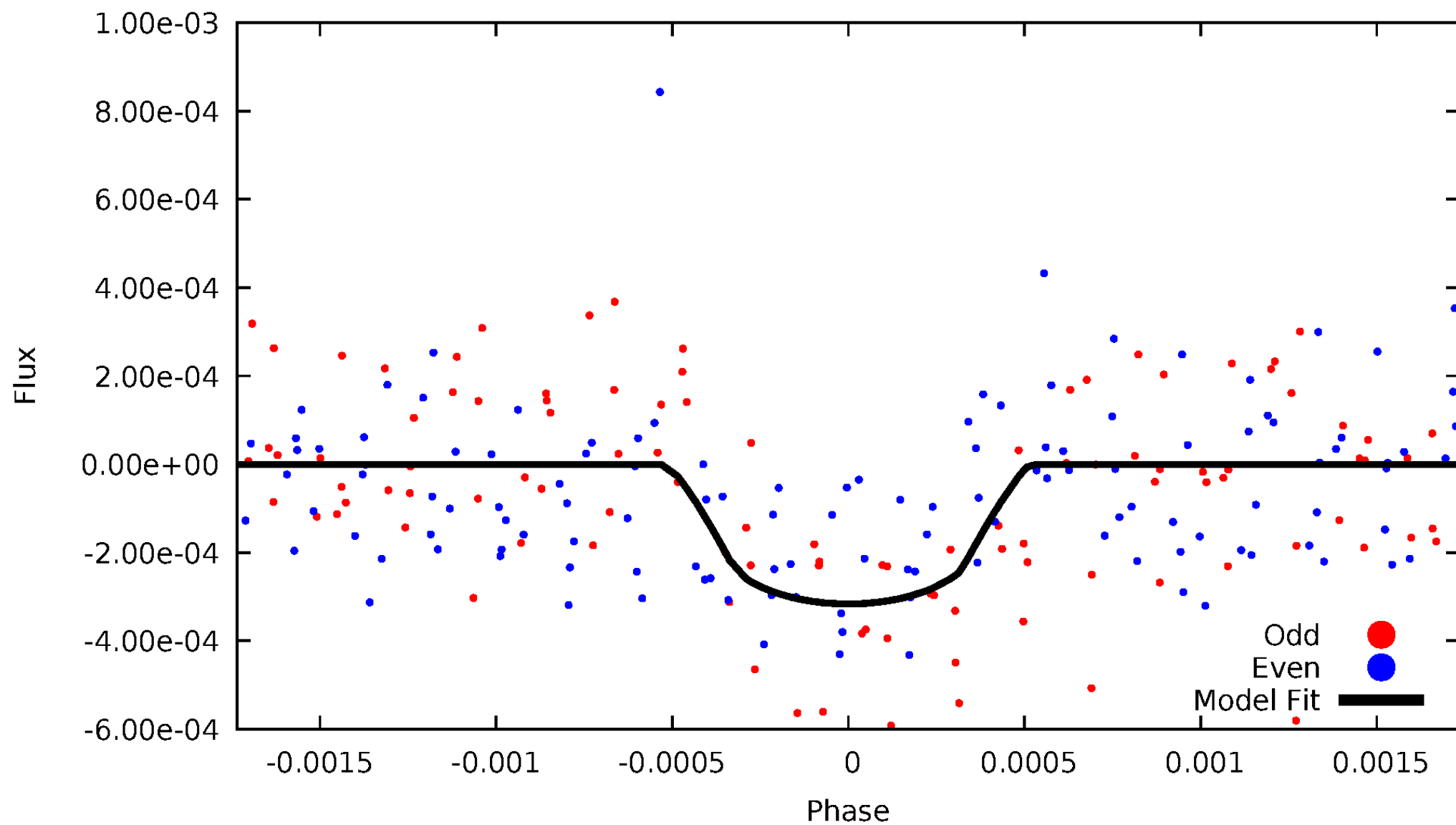


TCE 004953262-01



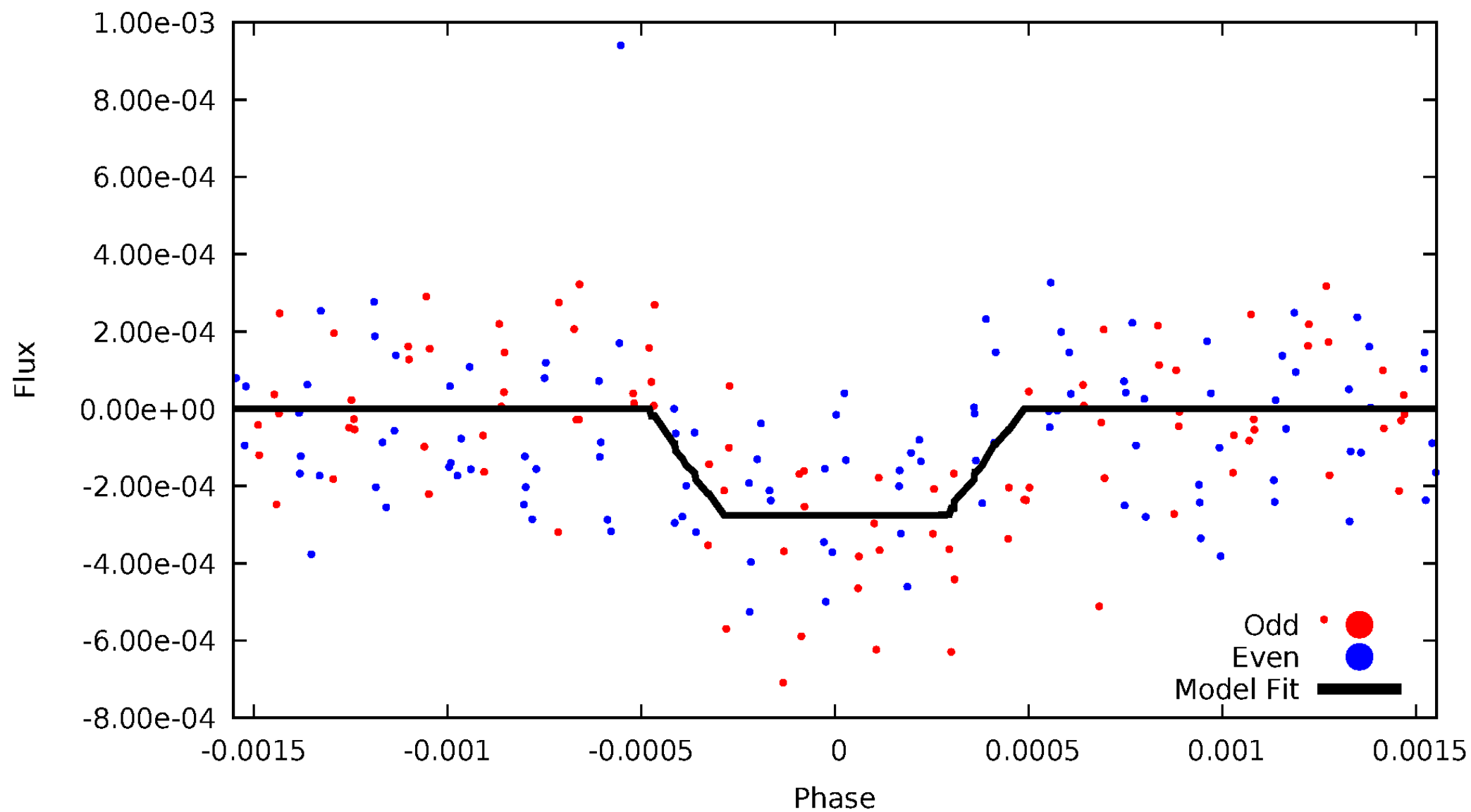
DV Odd/Even

TCE 004953262-01

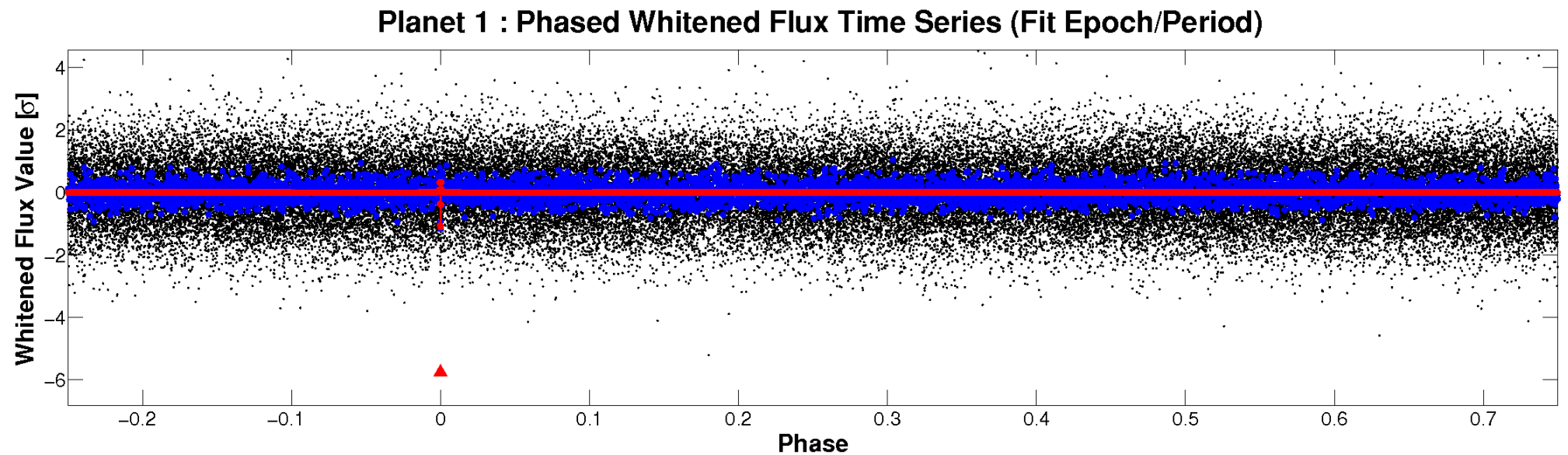
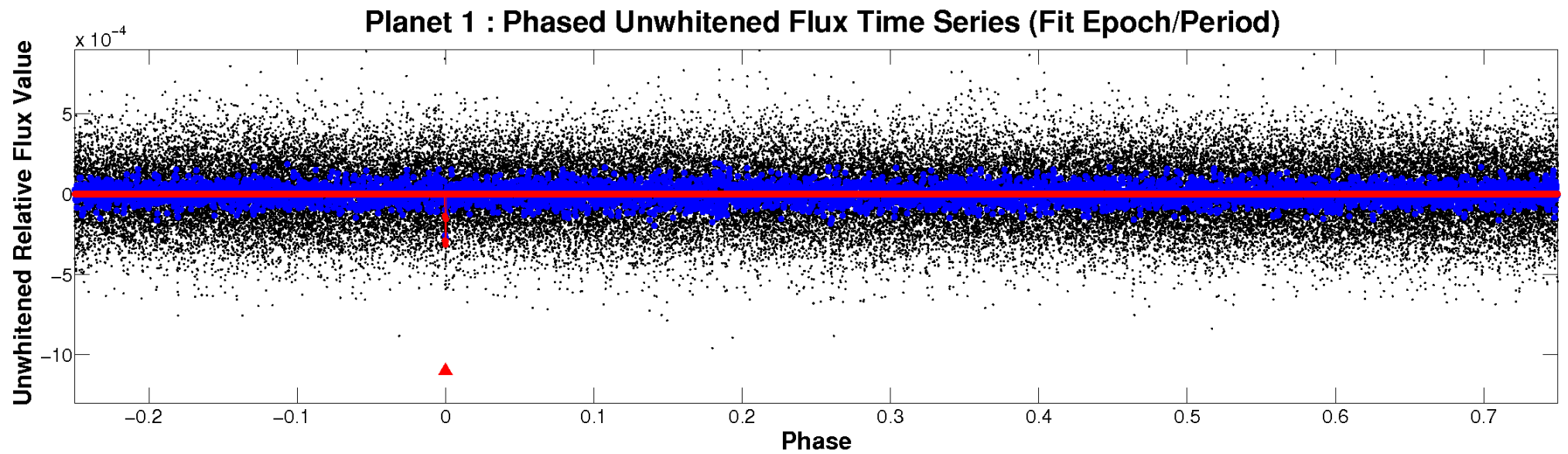


ALT Odd/Even

TCE 004953262-01

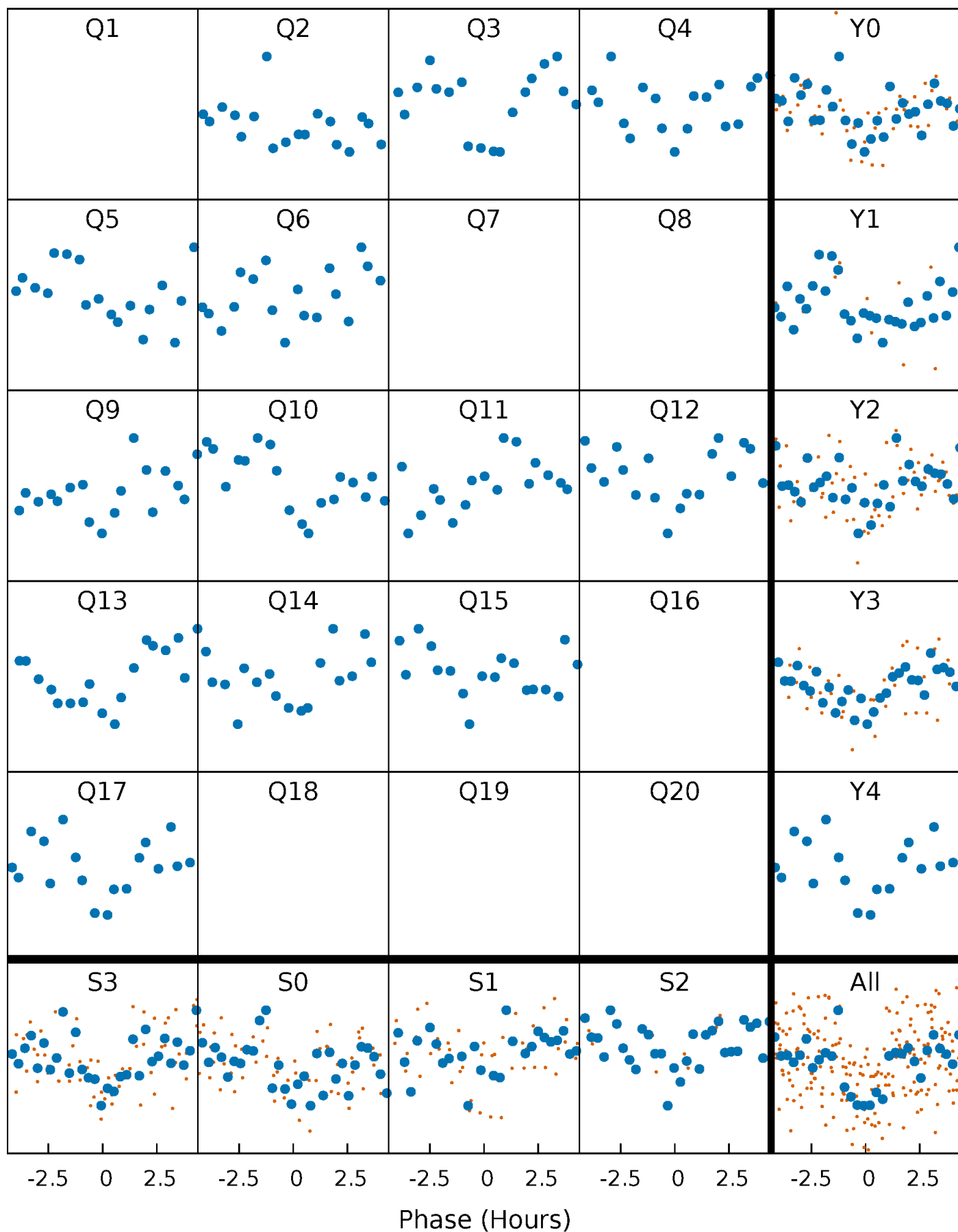


Non-Whitened Vs. Whitened Light Curve



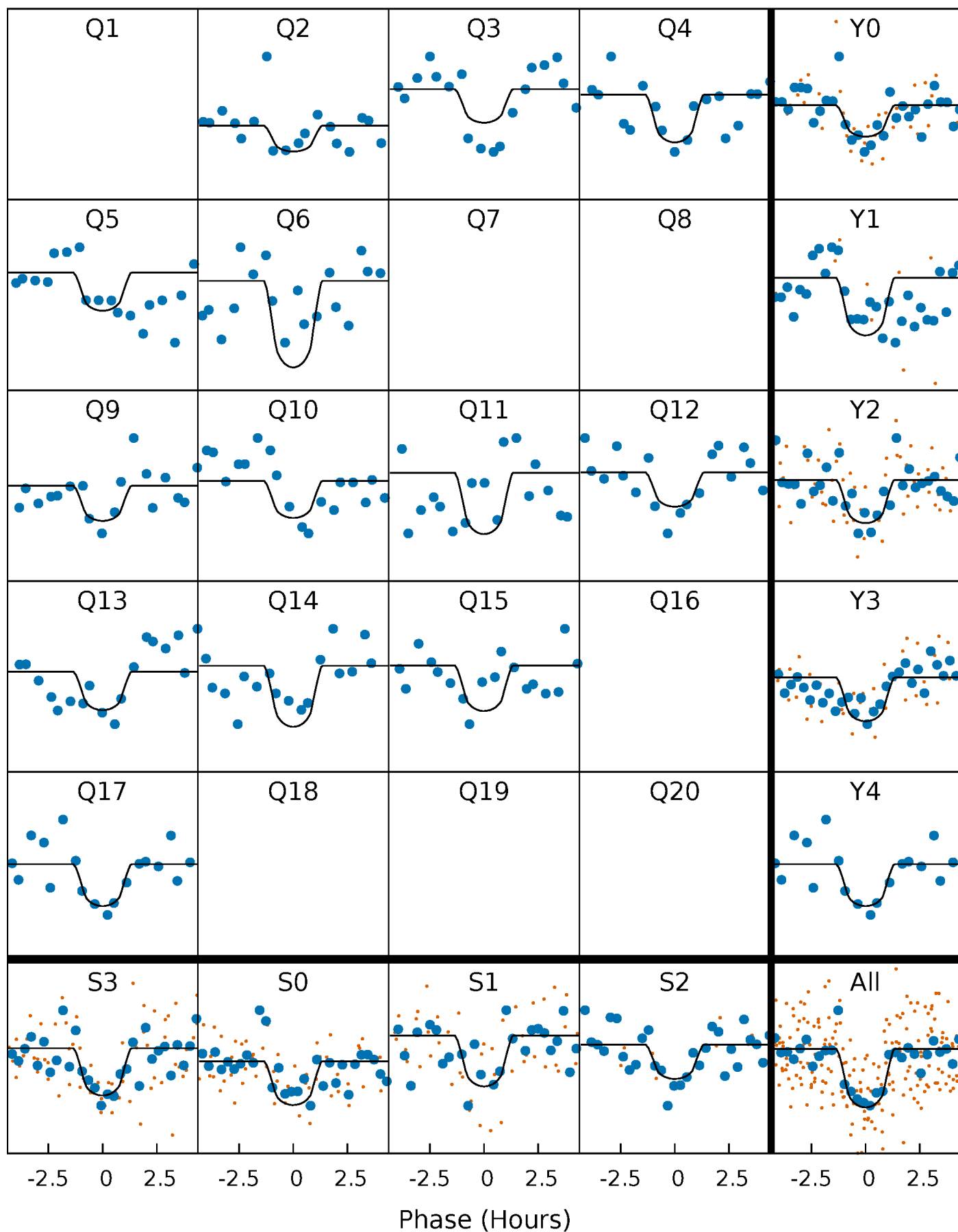
PDC Quarter-Phased Transit Curves

TCE 004953262-01 P=105.591090 Days $T_0=192.299535$ (BKJD)



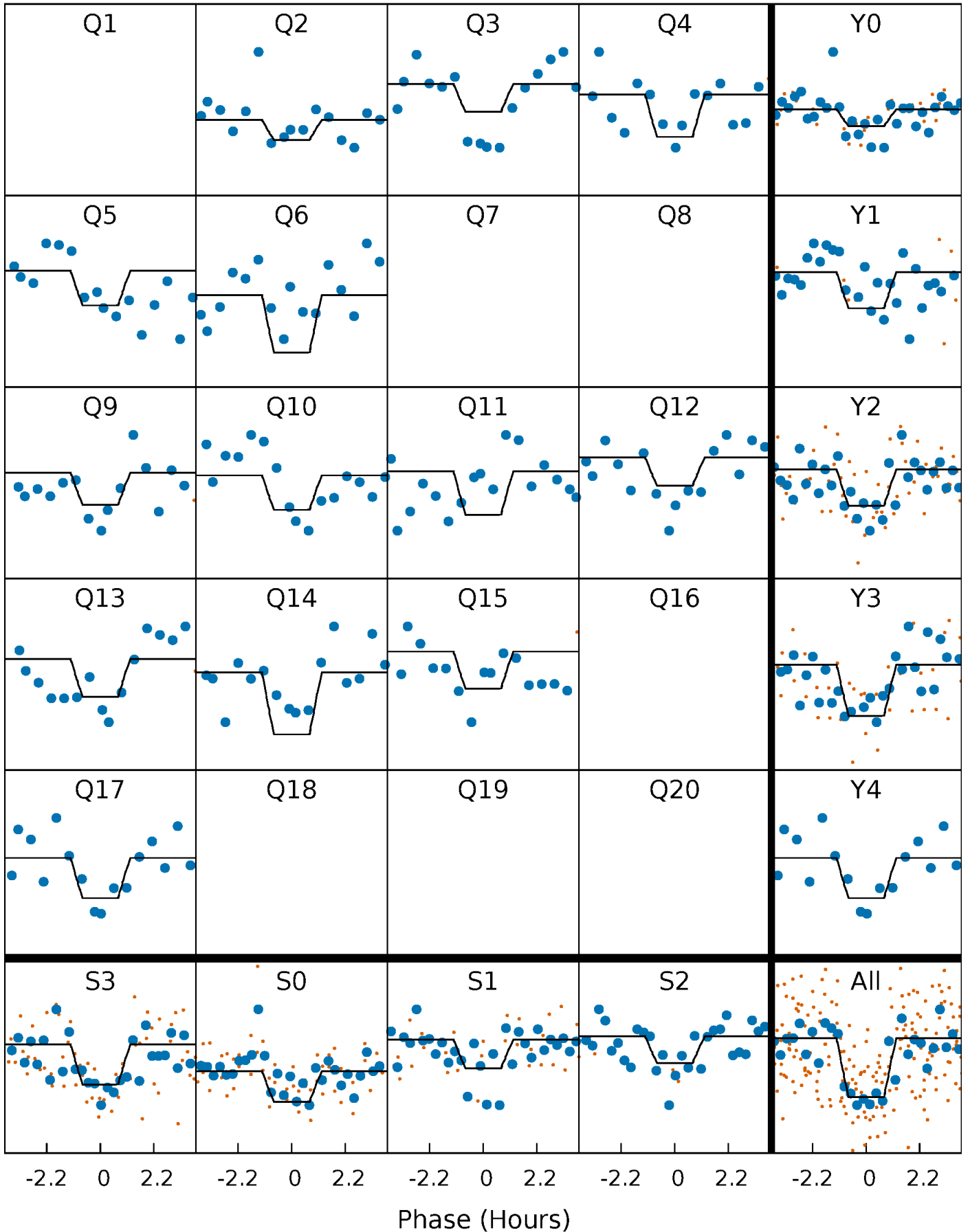
DV Quarter-Phased Transit Curves

TCE 004953262-01 P=105.591090 Days $T_0=192.299535$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

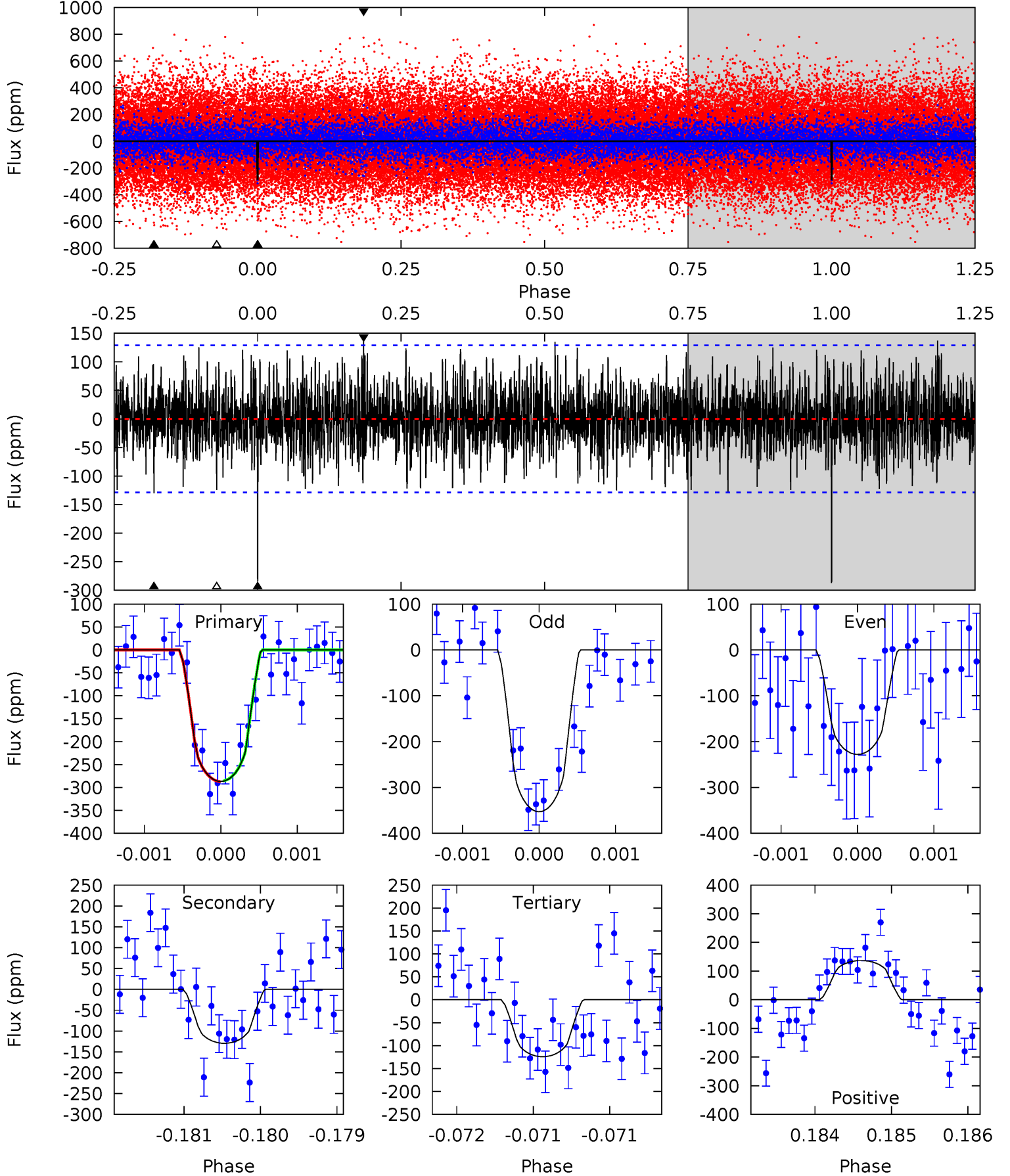
TCE 004953262-01 P=105.590758 Days $T_0=192.301414$ (BKJD)



DV Model-Shift Uniqueness Test

004953262-01, $P = 105.591090$ Days, $E = 86.708445$ Days

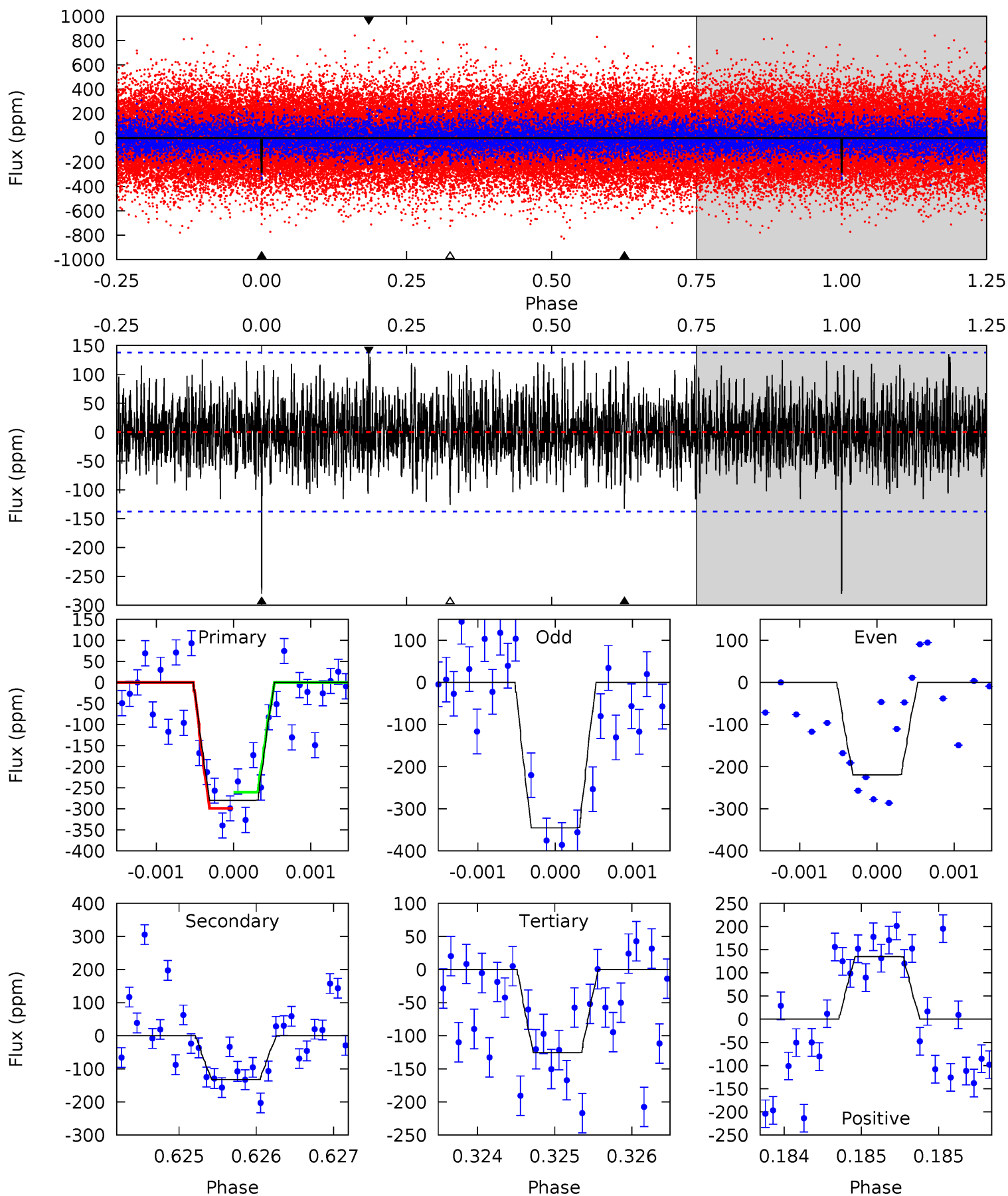
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	5.48	5.26	5.80	5.46	3.30	1.77	6.89	6.35	0.23	-0.31	2.64	1.05	0.32	0.02



Alt Model-Shift Uniqueness Test

004953262-01, P = 105.590758 Days, E = 86.710656 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	5.26	4.99	5.36	5.47	3.31	1.61	6.14	5.77	0.27	-0.10	2.48	1.07	0.32	0.76



Stellar Parameters For KIC 004953262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4869^{+68}_{-58}	$3.193^{+0.030}_{-0.030}$	$-0.040^{+0.150}_{-0.100}$	$4.383^{+0.501}_{-0.308}$	$1.094^{+0.240}_{-0.129}$	$0.018^{+0.002}_{-0.003}$
	+1%/-1%	+1%/-1%	+375%/-250%	+11%/-7%	+22%/-12%	+12%/-14%
Source	SPE74	AST9	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 004953262-01 / KOI 5110.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-130 ± 24	$10.59^{+7.51}_{-6.89}$	937^{+19}_{-17}	3826^{+1842}_{-631}	133^{+824}_{-90}
Alt.	-132 ± 25	$9.33^{+7.61}_{-5.81}$	938^{+19}_{-19}	3981^{+2079}_{-707}	172^{+1039}_{-120}

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 $A_{obs} \gg 1.0$

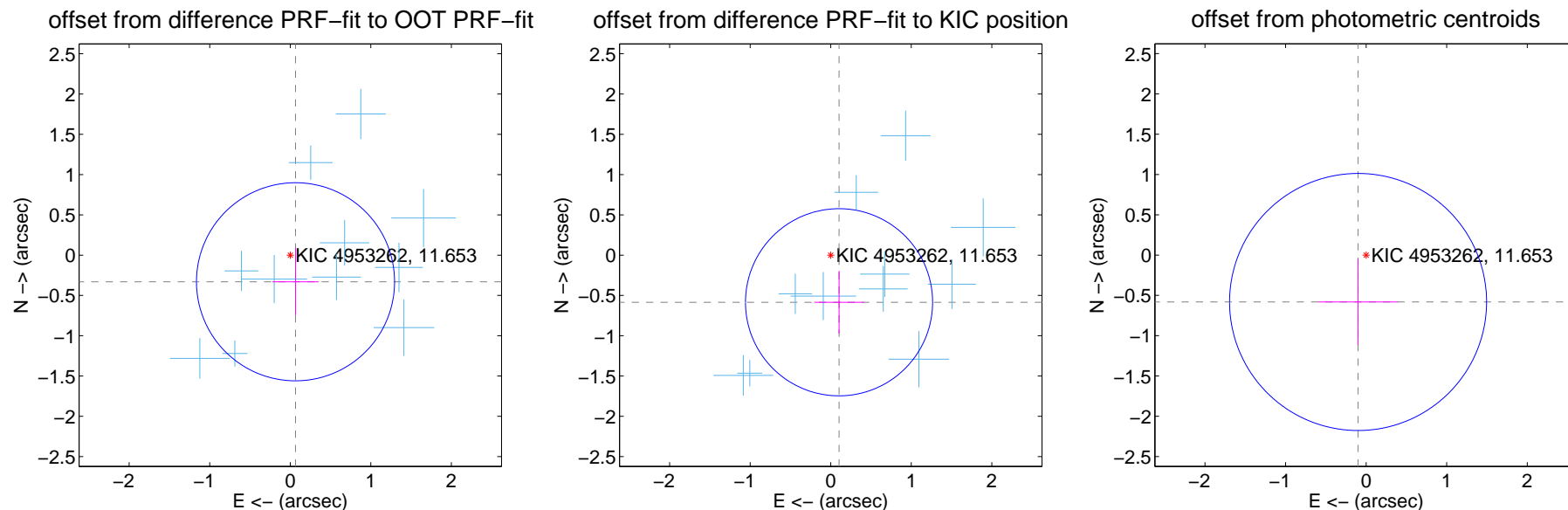
DV Centroid Data

Supplemental centroid analysis for 004953262-01. **Kepler magnitude: 11.65.** Transit SNR 7.53

There are 11 quarters with good PRF difference image offsets

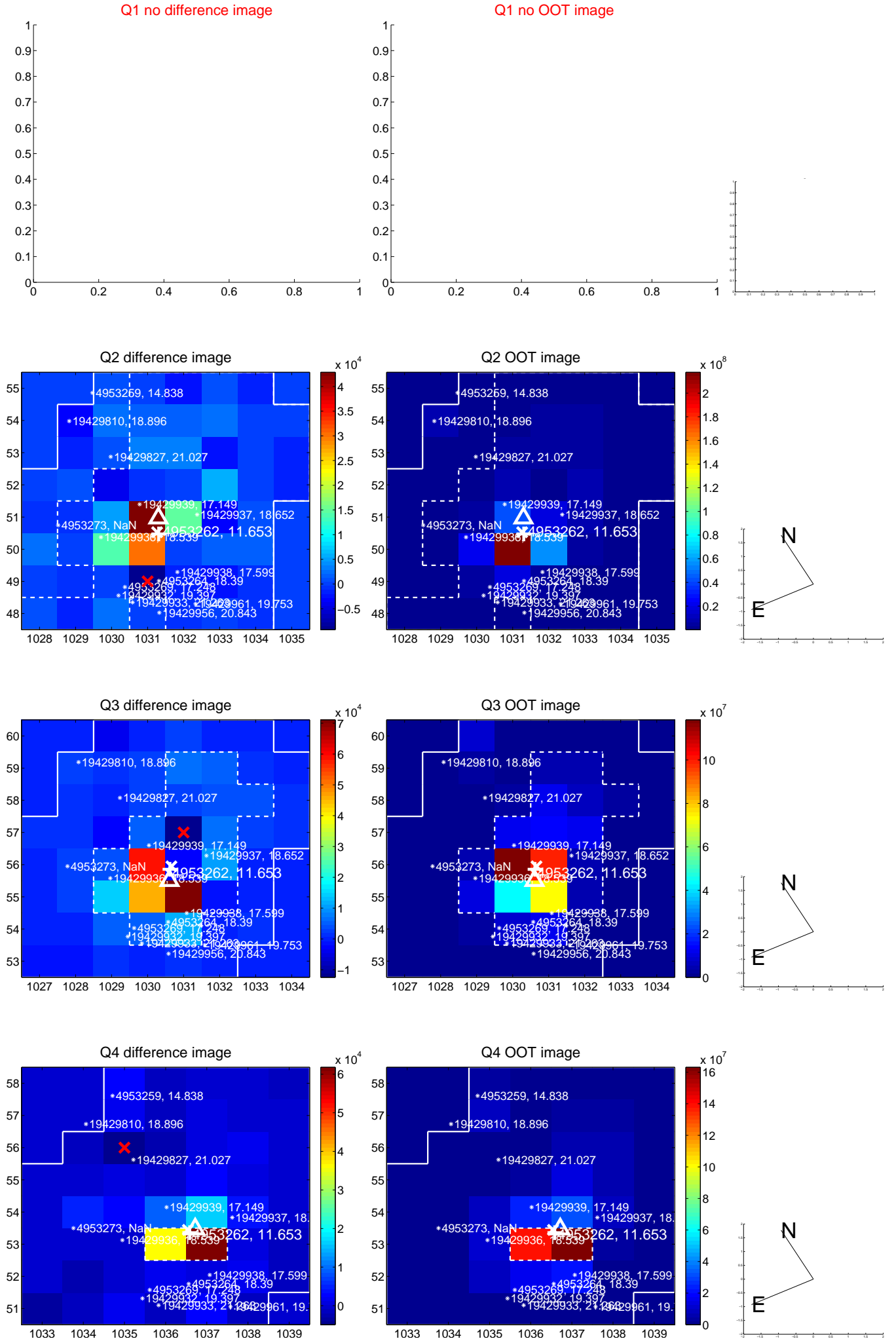
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.337 ± 0.410	0.82	-0.065 ± 0.288	-0.330 ± 0.414
PRF-fit source offset from KIC position	0.594 ± 0.387	1.53	-0.103 ± 0.309	-0.585 ± 0.389
photometric centroid source offset	0.59 ± 0.53	1.11	0.10 ± 0.49	-0.58 ± 0.53

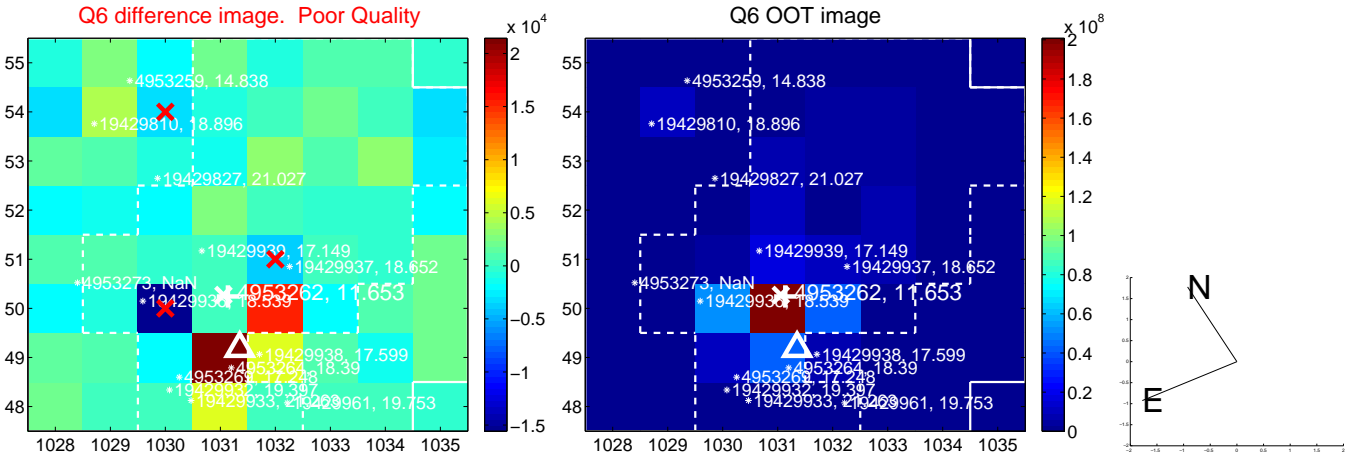
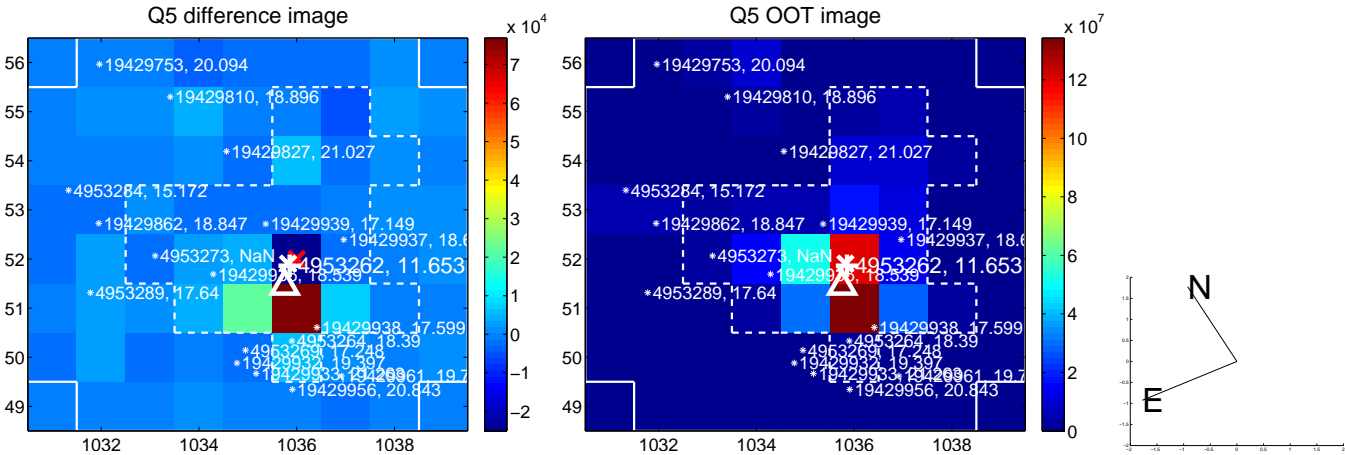


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

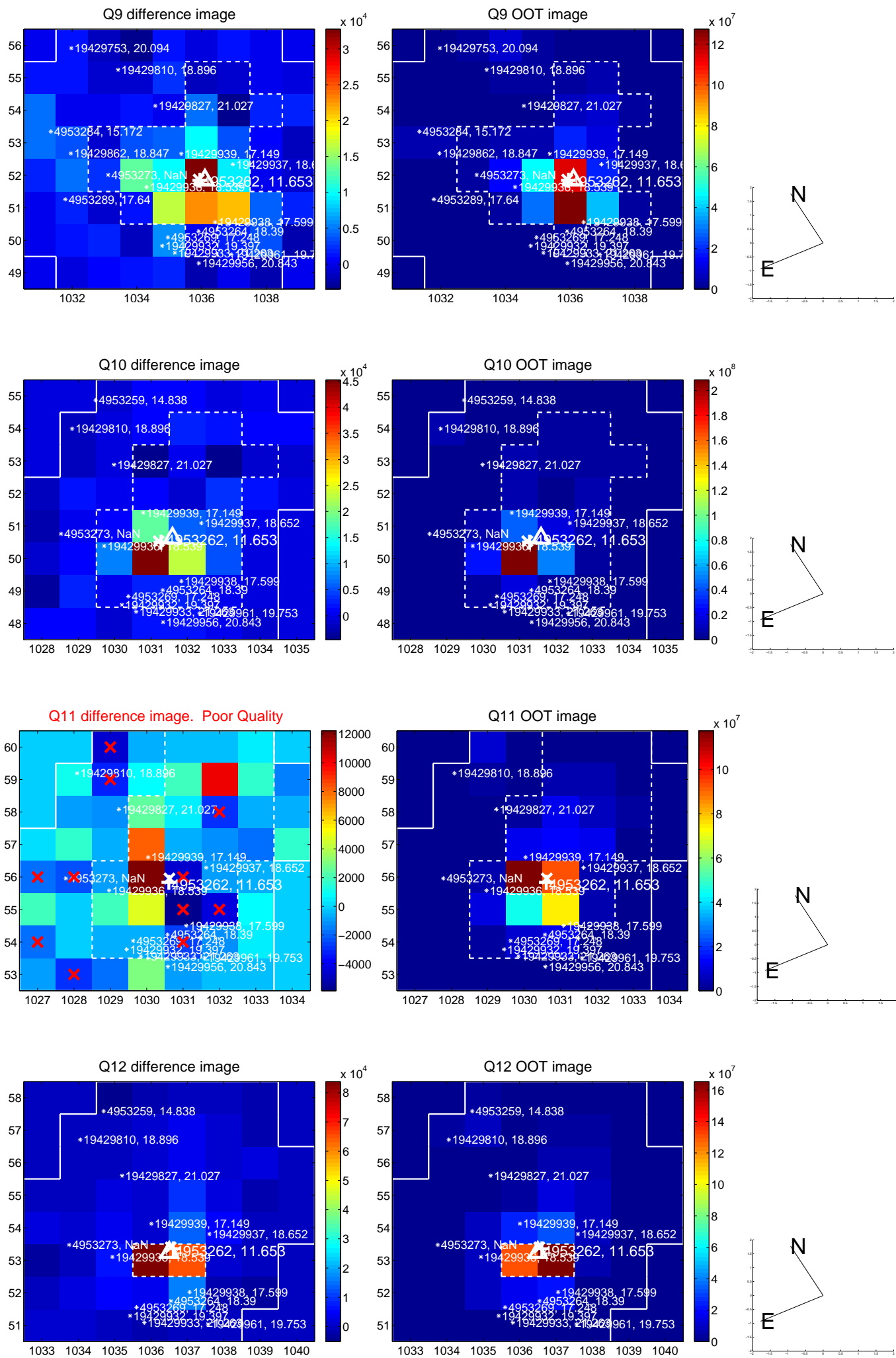
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



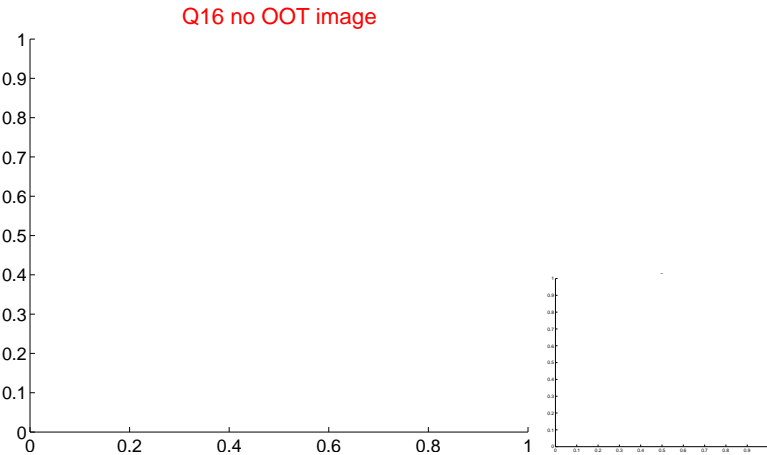
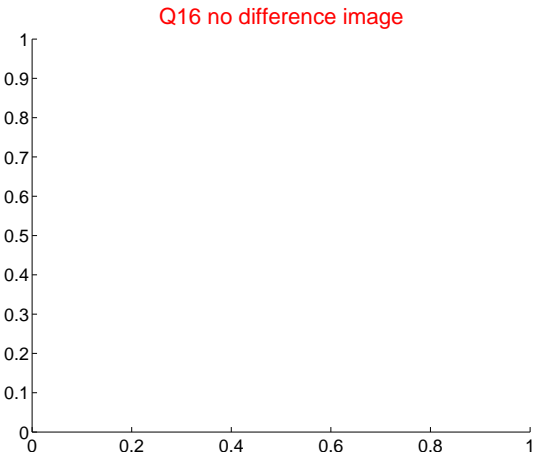
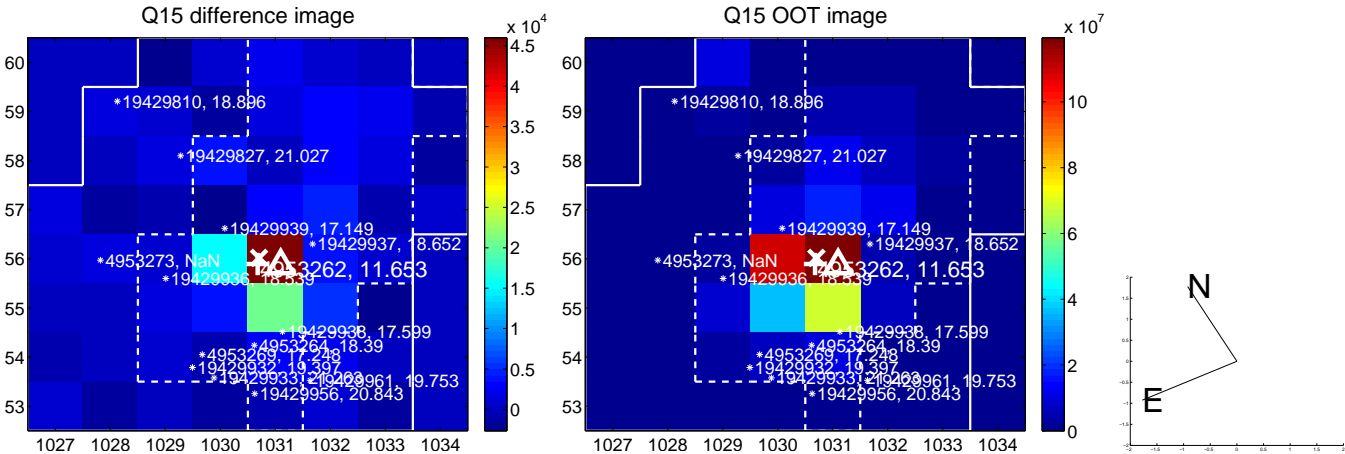
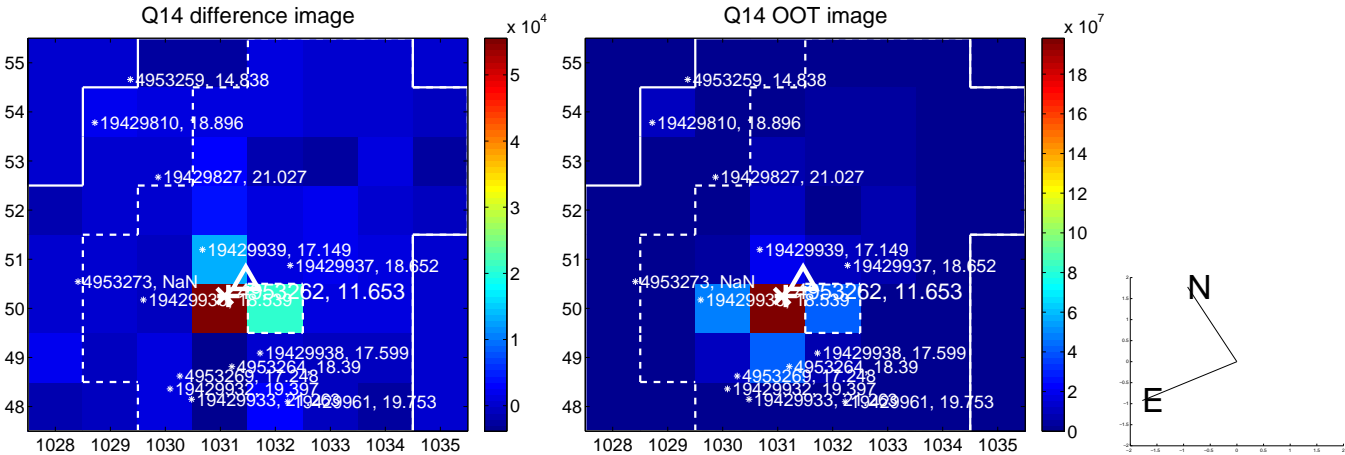
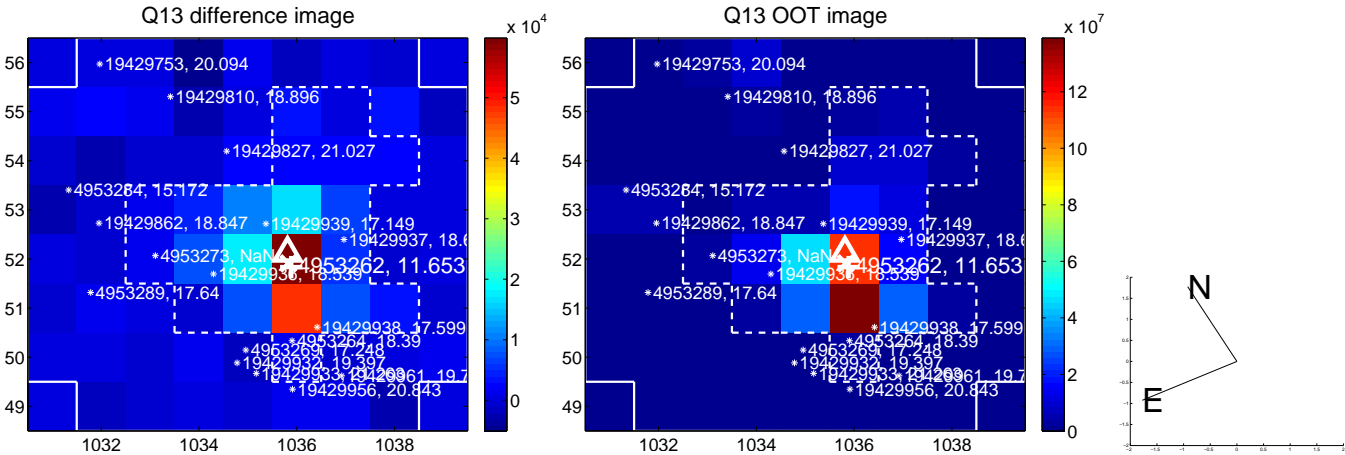
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



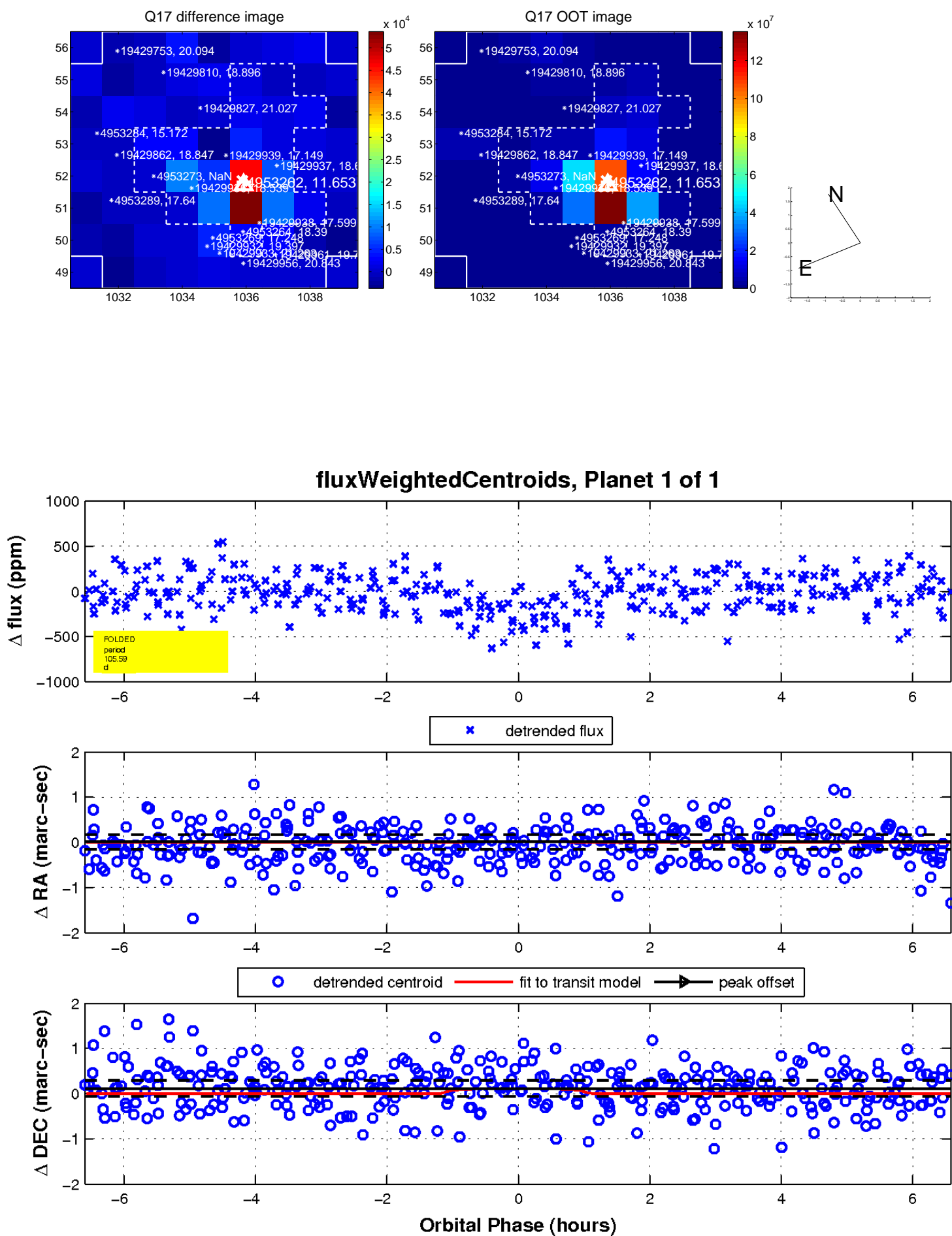
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

