

KIC 008556061

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})
008556061-01	OBS	No	1.080617	132.207251	37.7	8.522	9.2	5.7	3.63	5082	2.17	14875.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008556061-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—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.

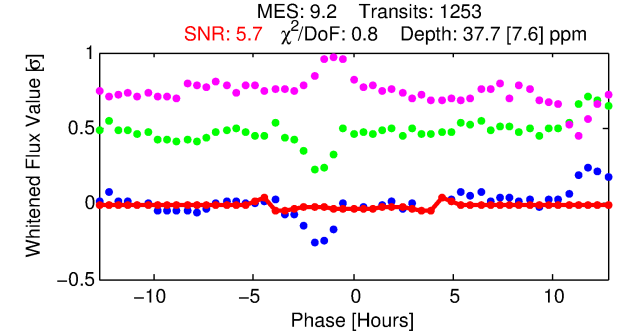
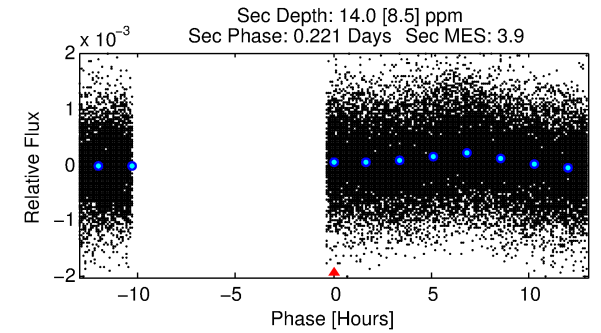
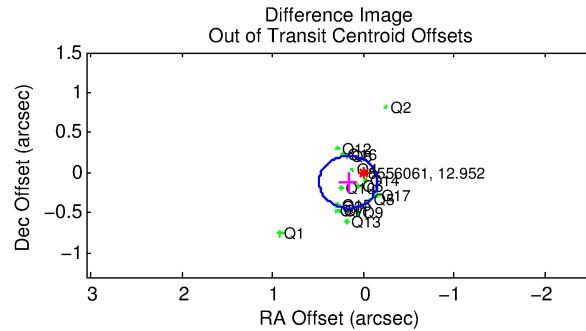
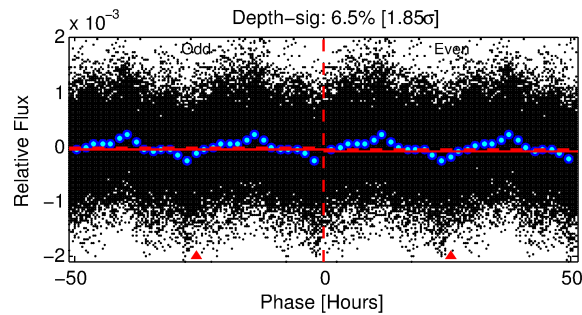
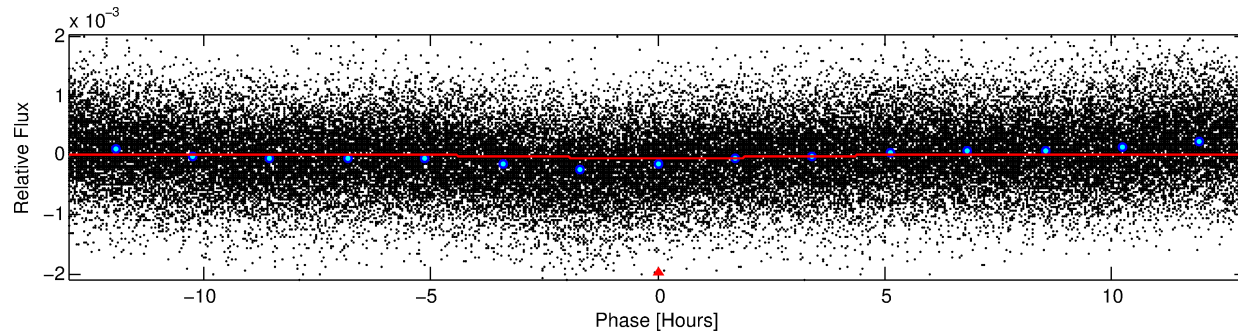
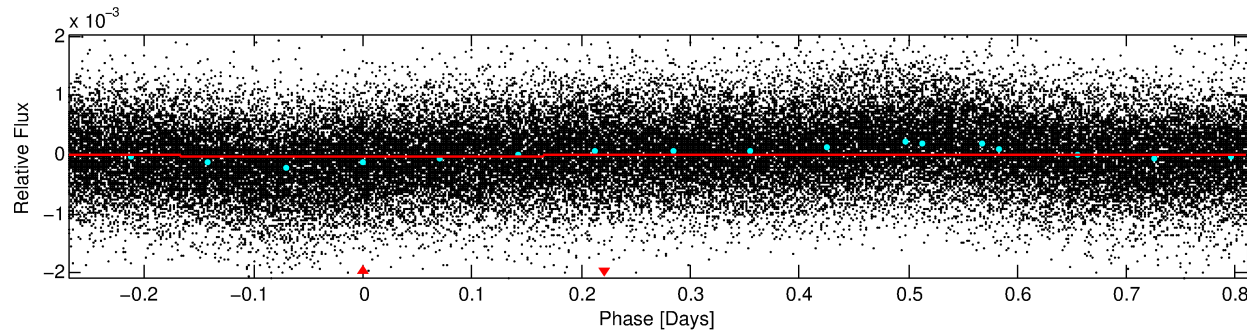
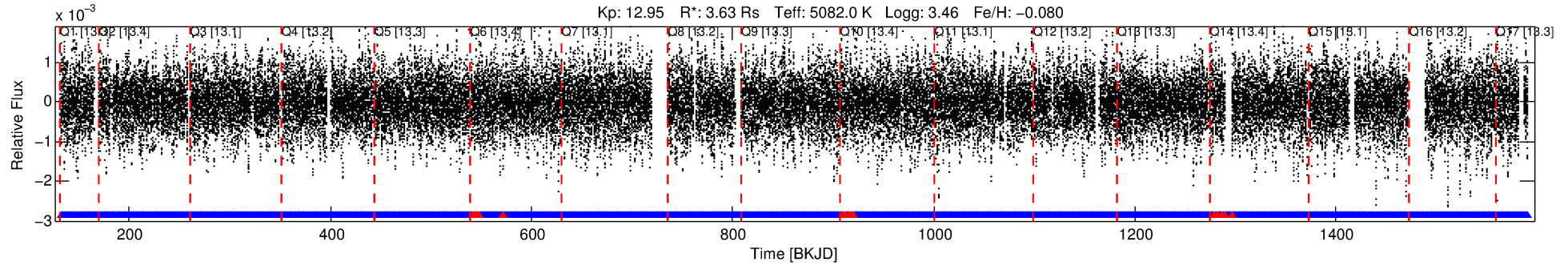
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008556061-01

No Significant Match Found

DV One-Page Summary

KIC: 8556061 Candidate: 1 of 1 Period: 1.081 d



DV Fit Results:

Period = 1.08062 [0.00002] d
Epoch = 132.2073 [0.0034] BKJD
Rp/R* = 0.0055 [0.0030]
a/R* = 1.17 [0.65]
b = 0.03 [69.00]
Seff = 14875.57 [10679.42]
Teq = 2816 [505] K
Rp = 2.17 [1.52] Re
a = 0.0230 [0.0100] AU
Ag = 0.87 [1.25] [-0.11 σ]
Teffp = 4203 [1325] K [0.98 σ]

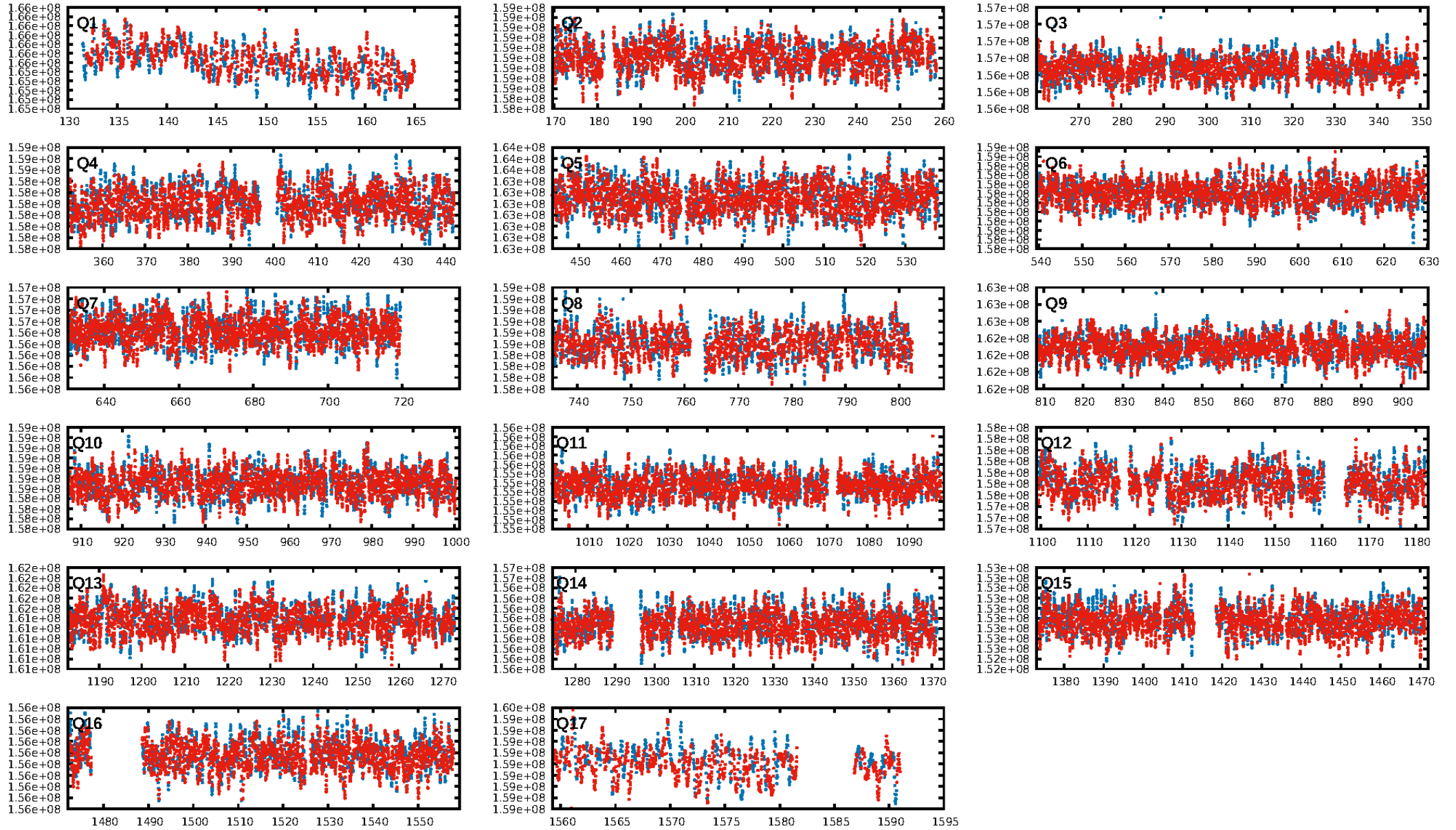
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1176/1196]
GhostDiagnostic-chr: 0.764
Centroid-sig: 0.0%
Centroid-so: 1.628 arcsec [4.37 σ]
OotOffset-rm: 0.201 arcsec [1.86 σ]
KicOffset-rm: 0.249 arcsec [2.24 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

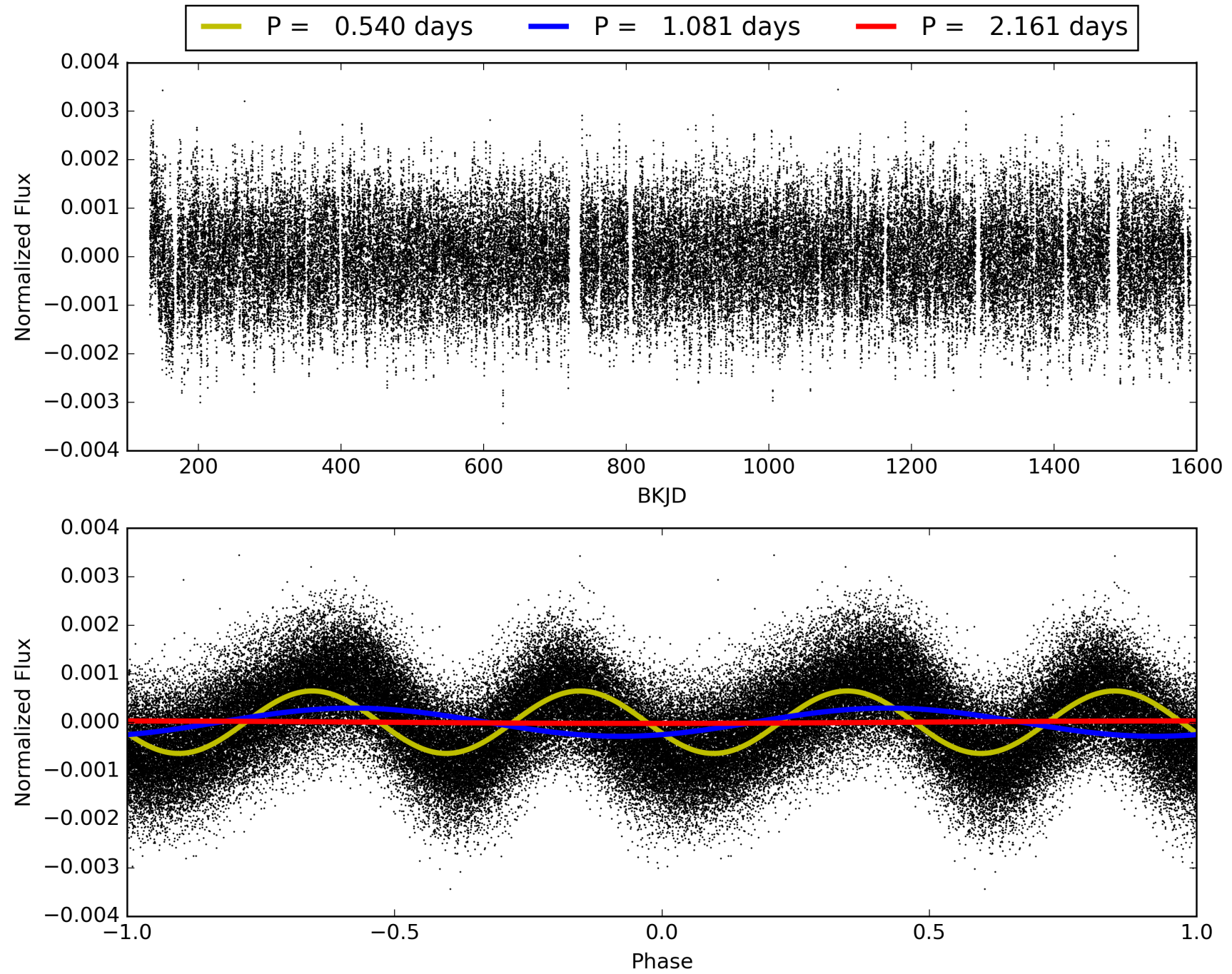
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:14:38 Z

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

TCE 008556061-01, PDC Light Curves

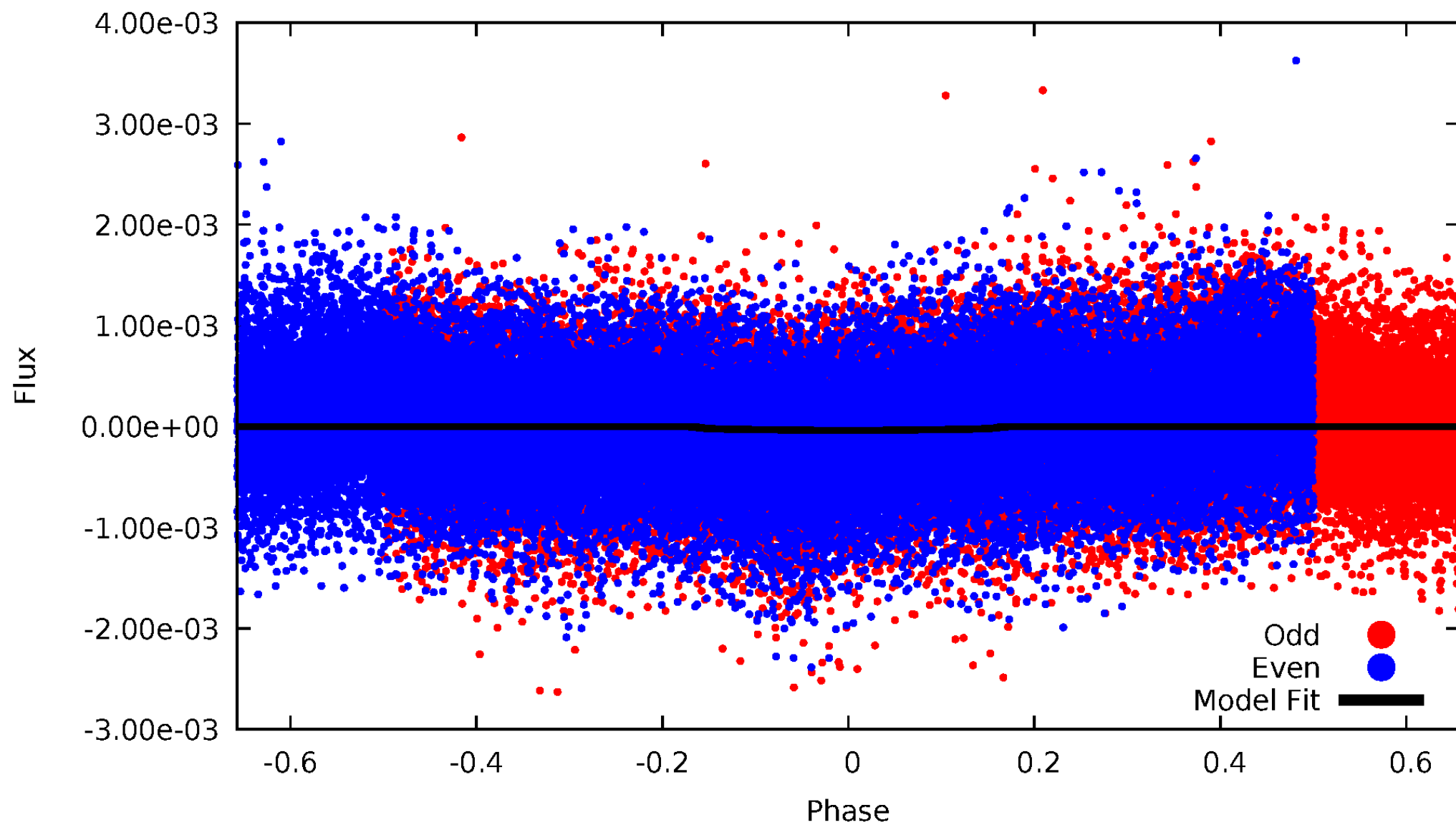


TCE 008556061-01



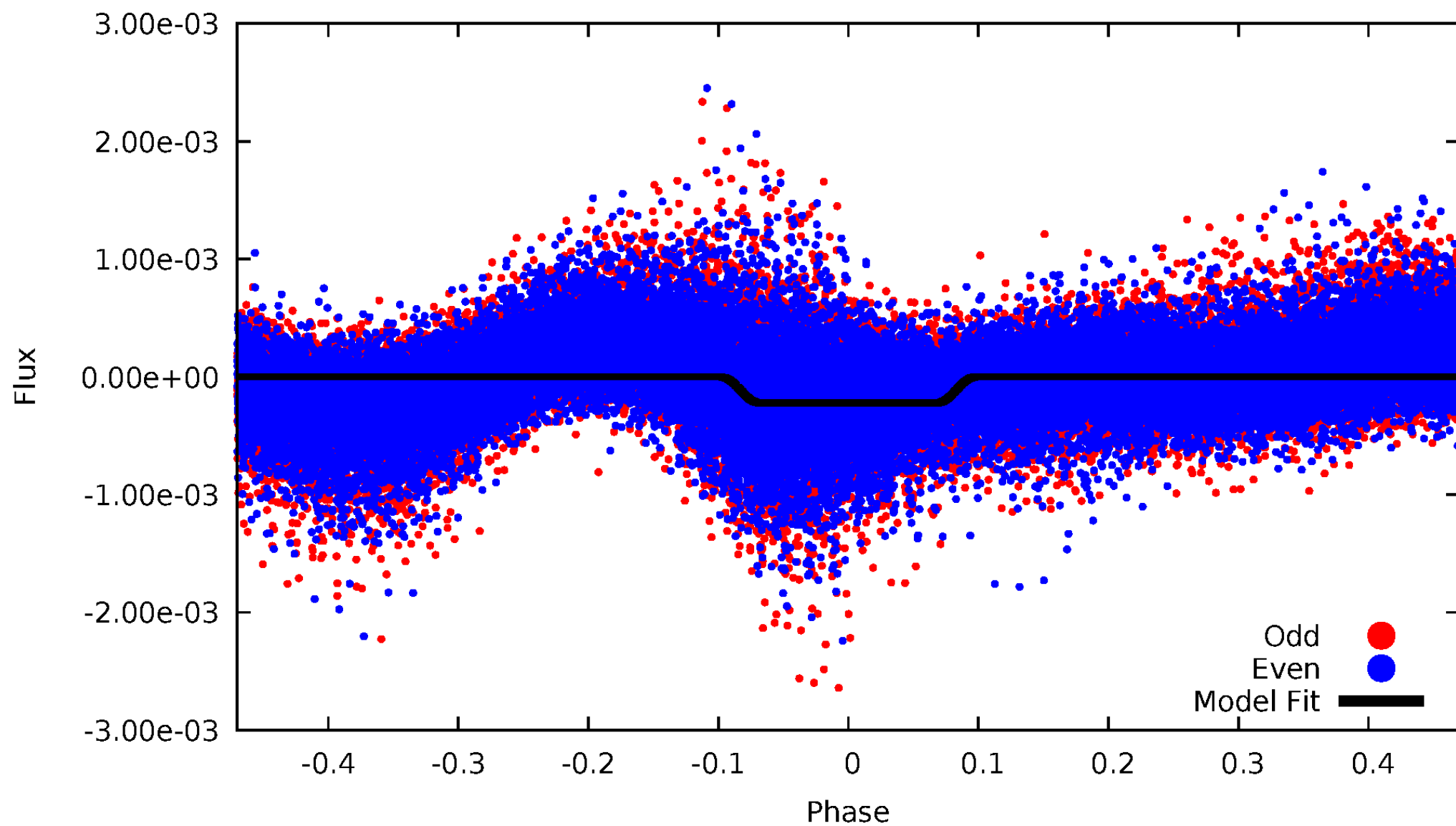
DV Odd/Even

TCE 008556061-01

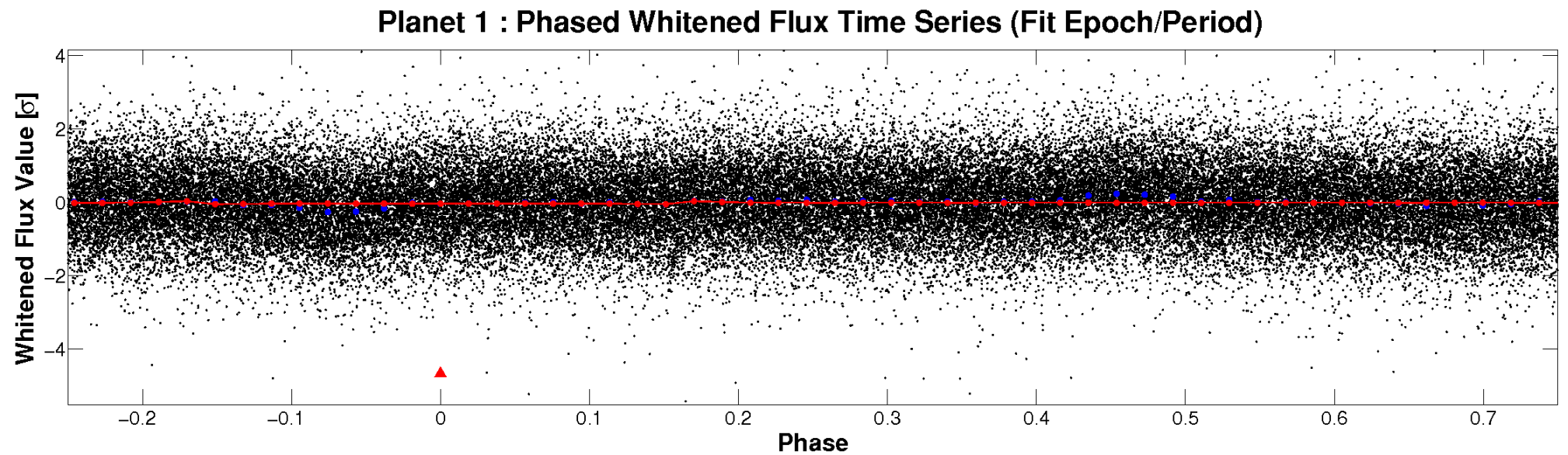
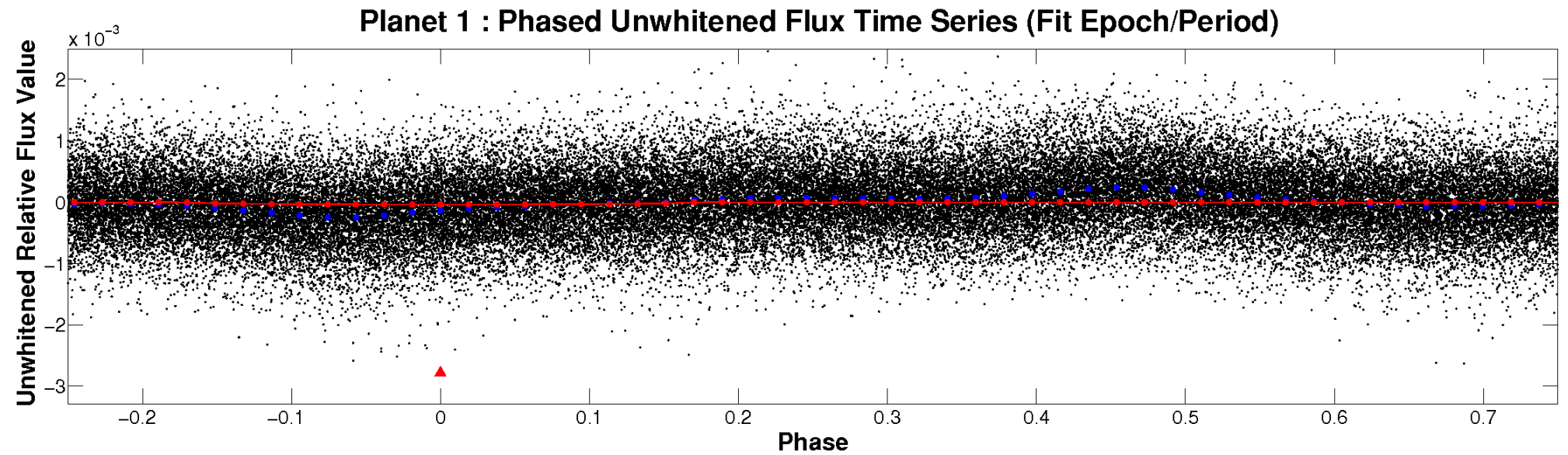


ALT Odd/Even

TCE 008556061-01

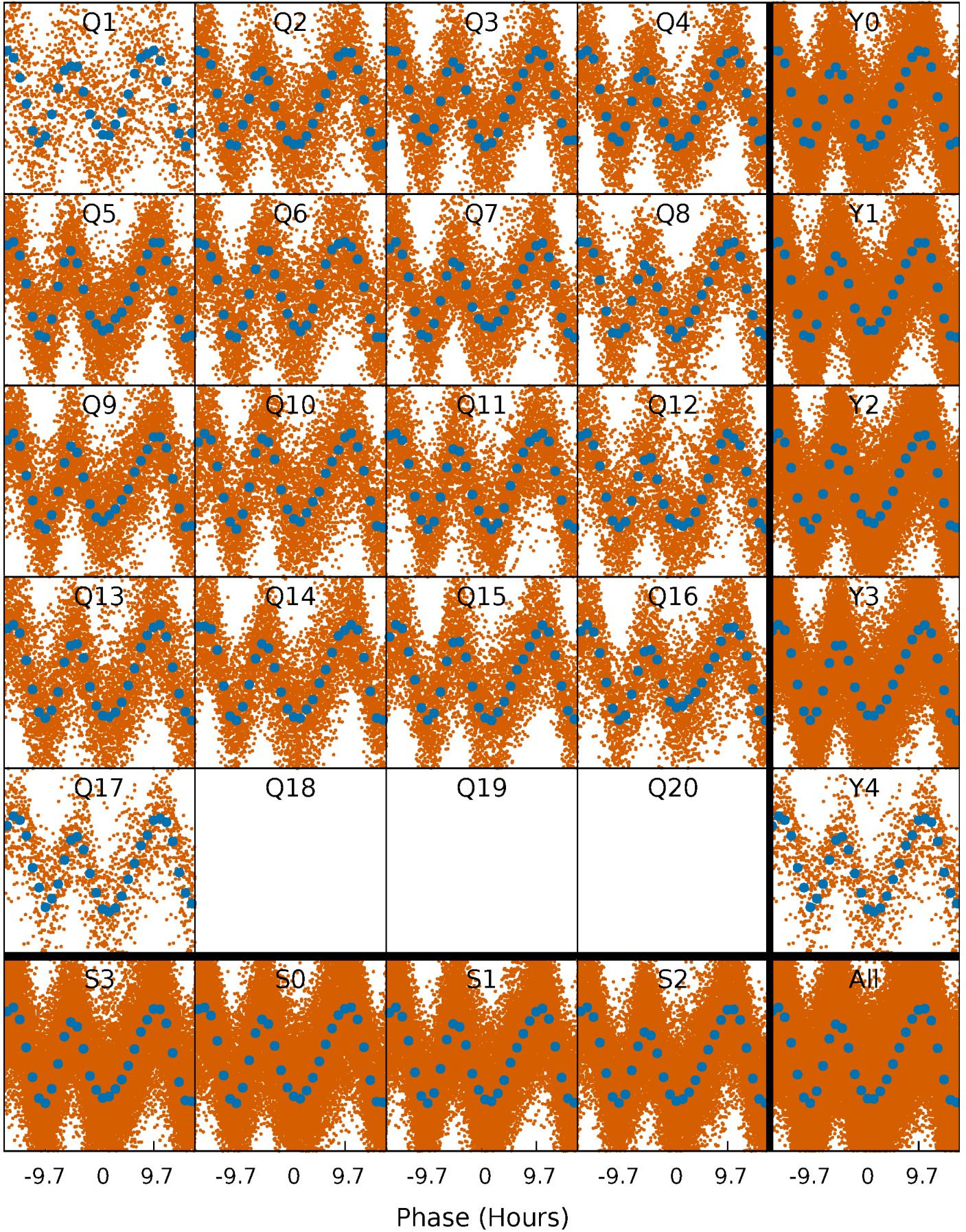


Non-Whitened Vs. Whitened Light Curve



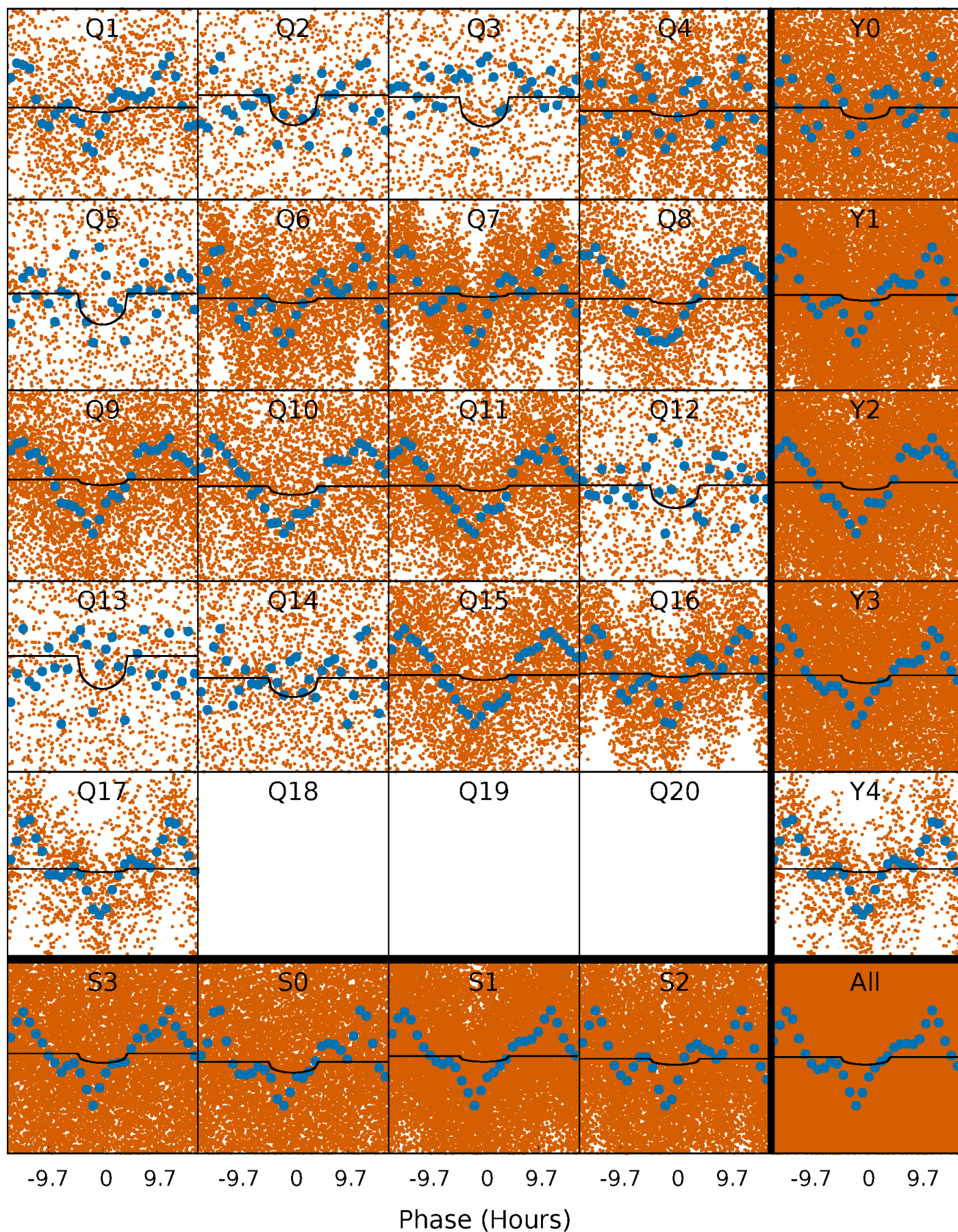
PDC Quarter-Phased Transit Curves

TCE 008556061-01 P= 1.080617 Days $T_0=132.207251$ (BKJD)



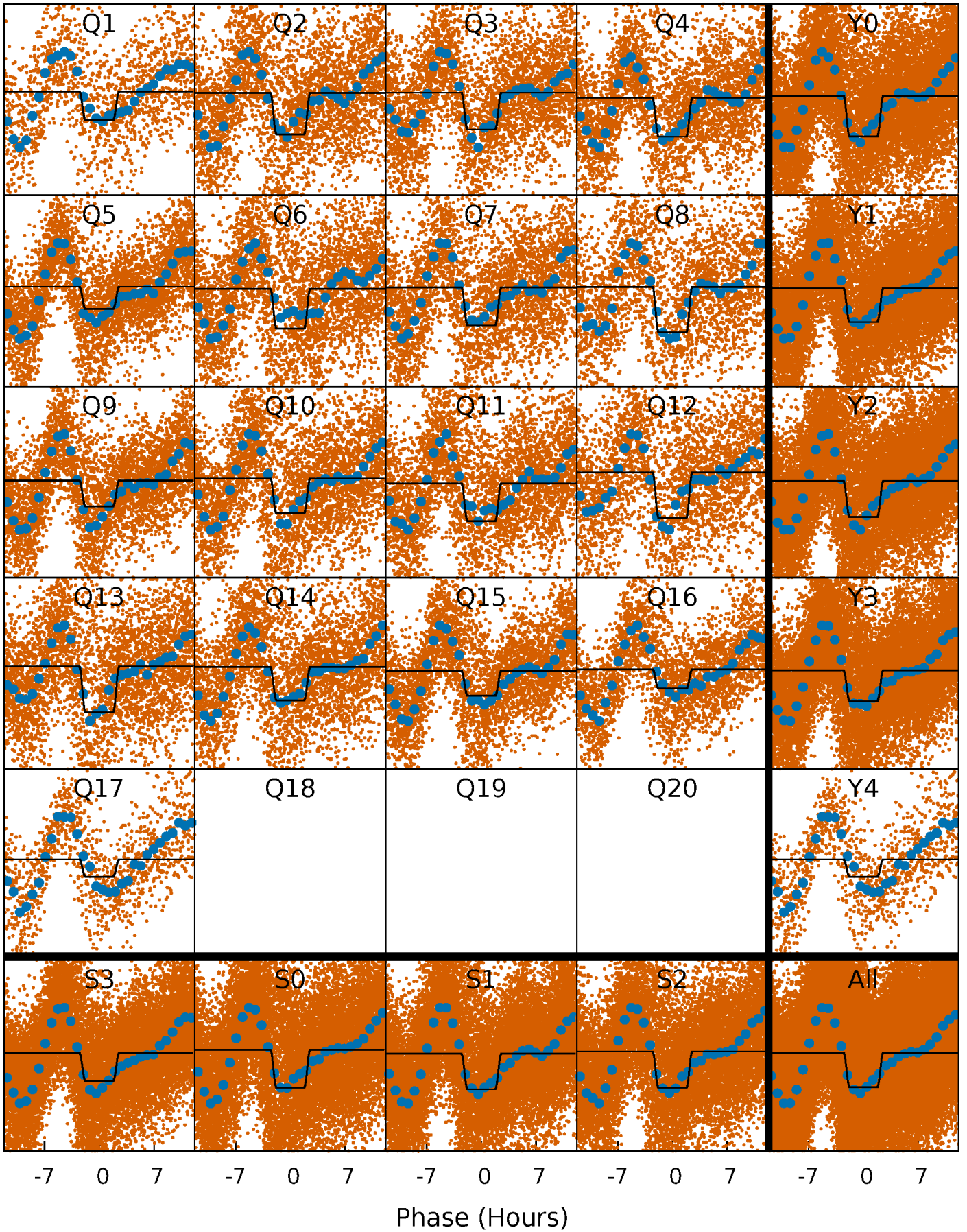
DV Quarter-Phased Transit Curves

TCE 008556061-01 P= 1.080617 Days $T_0=132.207251$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

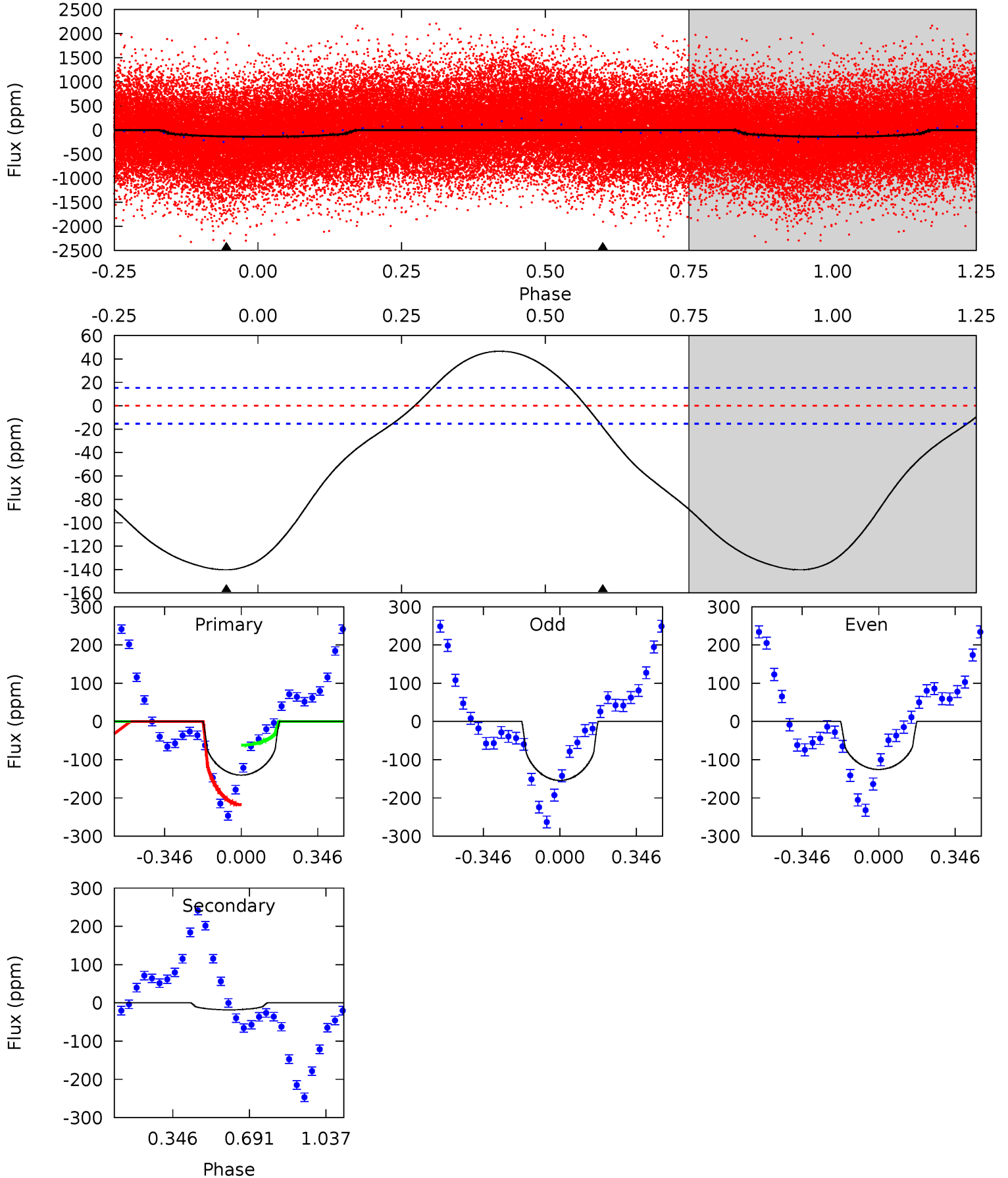
TCE 008556061-01 P= 1.080641 Days $T_0=132.186286$ (BKJD)



DV Model-Shift Uniqueness Test

008556061-01, P = 1.080617 Days, E = 131.126634 Days

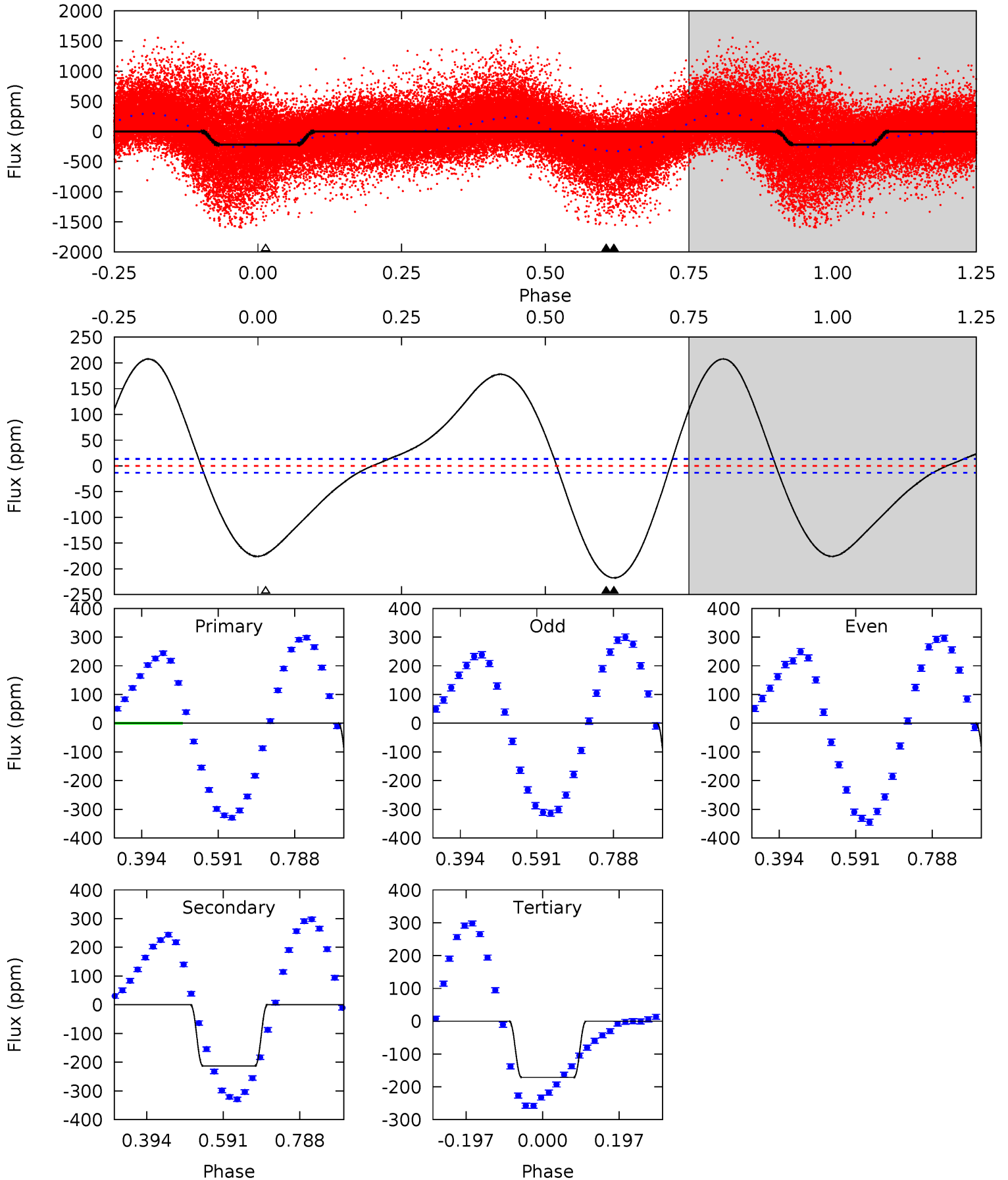
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.4	5.13	0	0	4.30	0.94	3.66	39.4	39.4	5.13	5.13	4.03	1.09	0.25	22.1



Alt Model-Shift Uniqueness Test

008556061-01, P = 1.080641 Days, E = 131.105645 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
71.2	69.5	56.1	0	4.42	1.29	35.3	15.1	71.2	13.5	69.5	2.75	1.11	0.49	8.59



Stellar Parameters For KIC 008556061

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5082^{+138}_{-138}	$3.462^{+0.422}_{-0.227}$	$-0.080^{+0.250}_{-0.250}$	$3.635^{+1.292}_{-1.580}$	$1.398^{+0.197}_{-0.459}$	$0.041^{+0.151}_{-0.024}$
	+3%/-3%	+12%/-7%	+312%/-312%	+36%/-43%	+14%/-33%	+369%/-57%
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 008556061-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-18 ± 4	$2.09^{+1.33}_{-1.12}$	3904^{+409}_{-490}	4216^{+1976}_{-1047}	$1.187^{+3.931}_{-0.767}$
Alt.	-213 ± 3	$5.48^{+1.88}_{-1.70}$	3893^{+393}_{-499}	4847^{+644}_{-426}	$1.963^{+2.149}_{-0.832}$

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

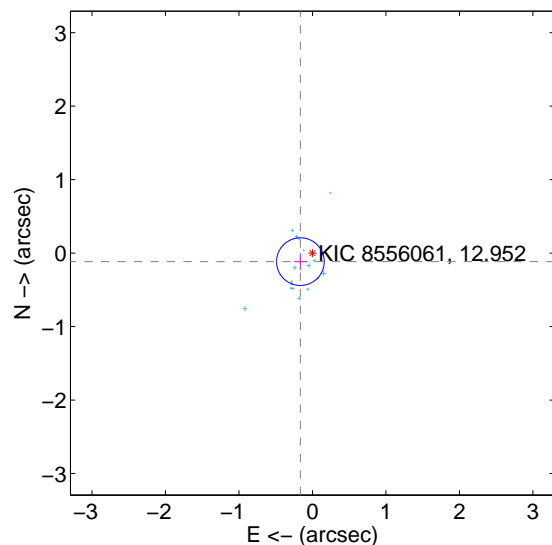
Supplemental centroid analysis for 008556061-01. Kepler magnitude: 12.95. Transit SNR 5.67

There are 17 quarters with good PRF difference image offsets

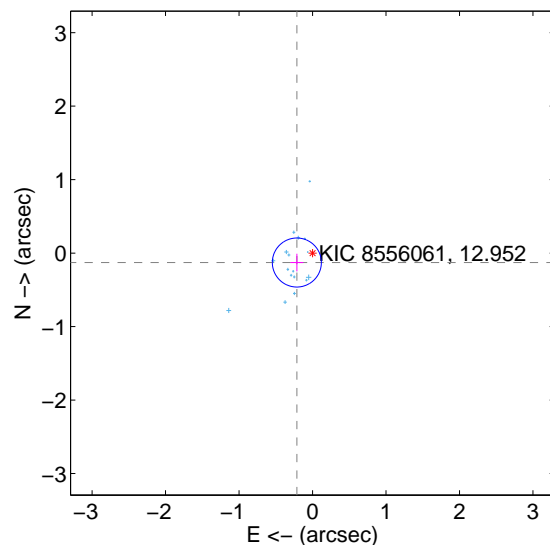
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.201 ± 0.108	1.86	0.164 ± 0.088	-0.116 ± 0.113
PRF-fit source offset from KIC position	0.249 ± 0.111	2.24	0.213 ± 0.089	-0.128 ± 0.120
photometric centroid source offset	1.63 ± 0.37	4.37	-0.43 ± 0.36	-1.57 ± 0.37

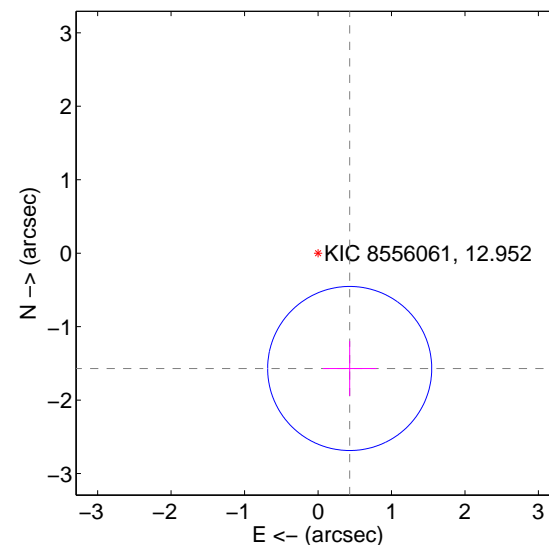
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

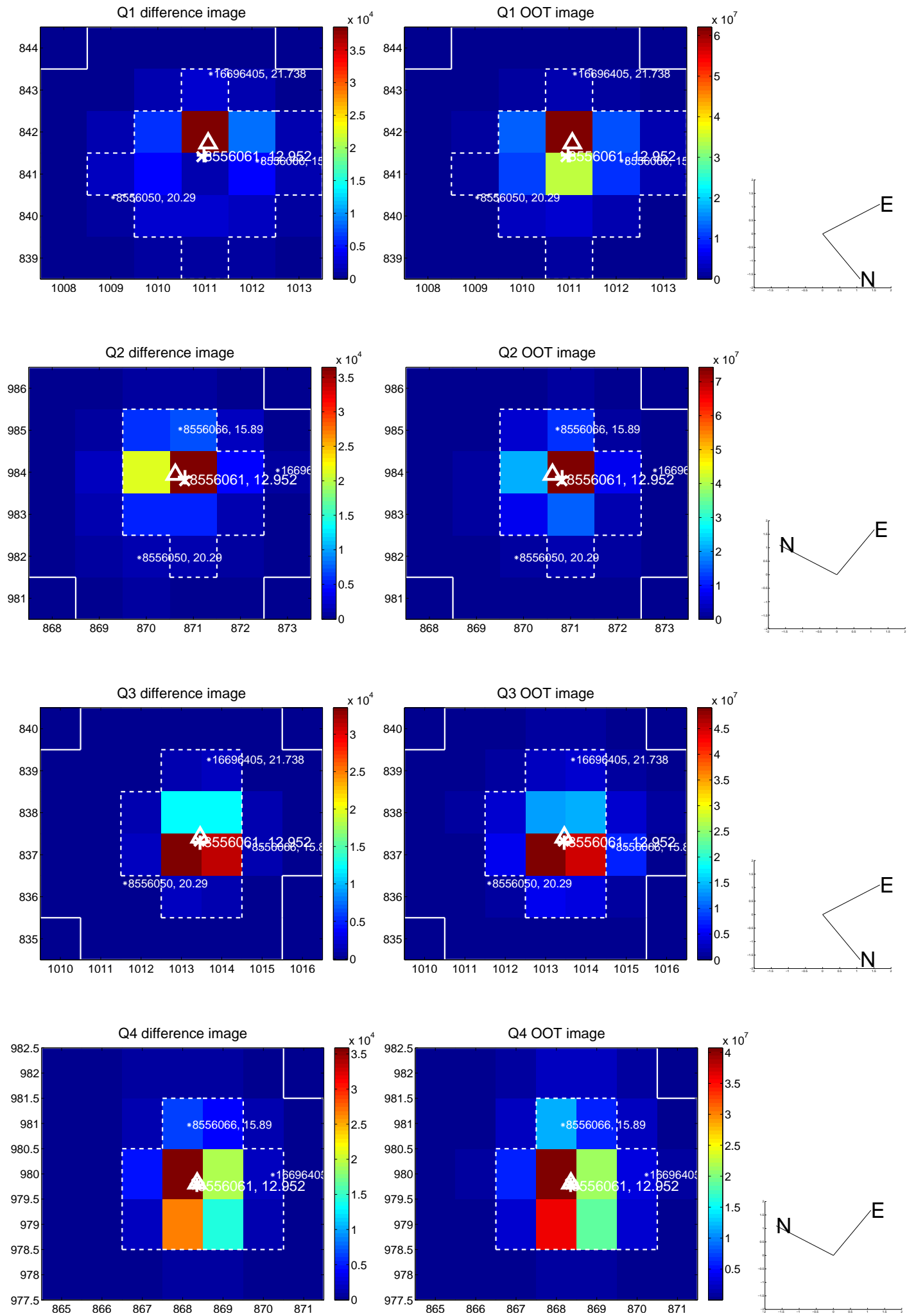


offset from photometric centroids

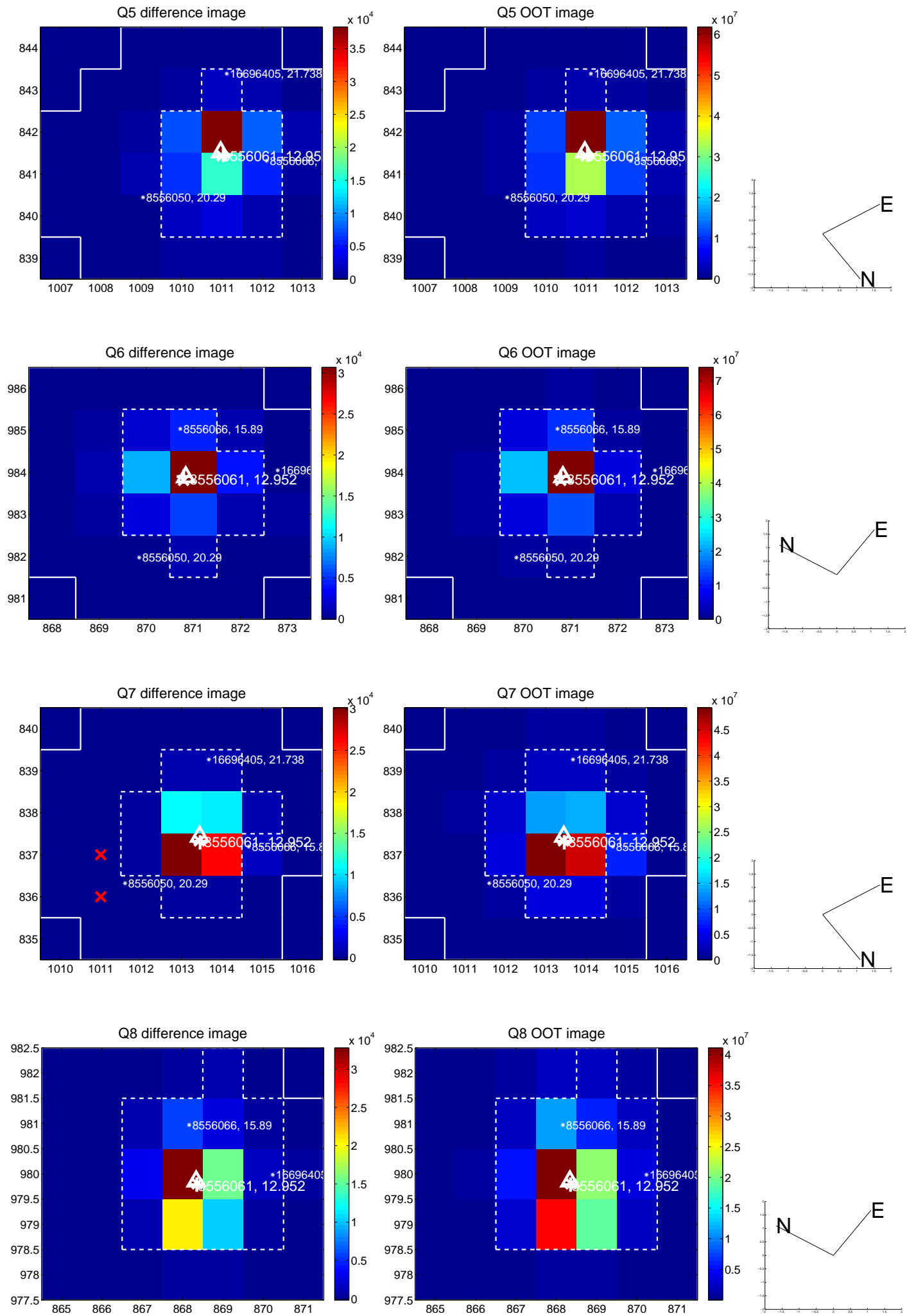


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

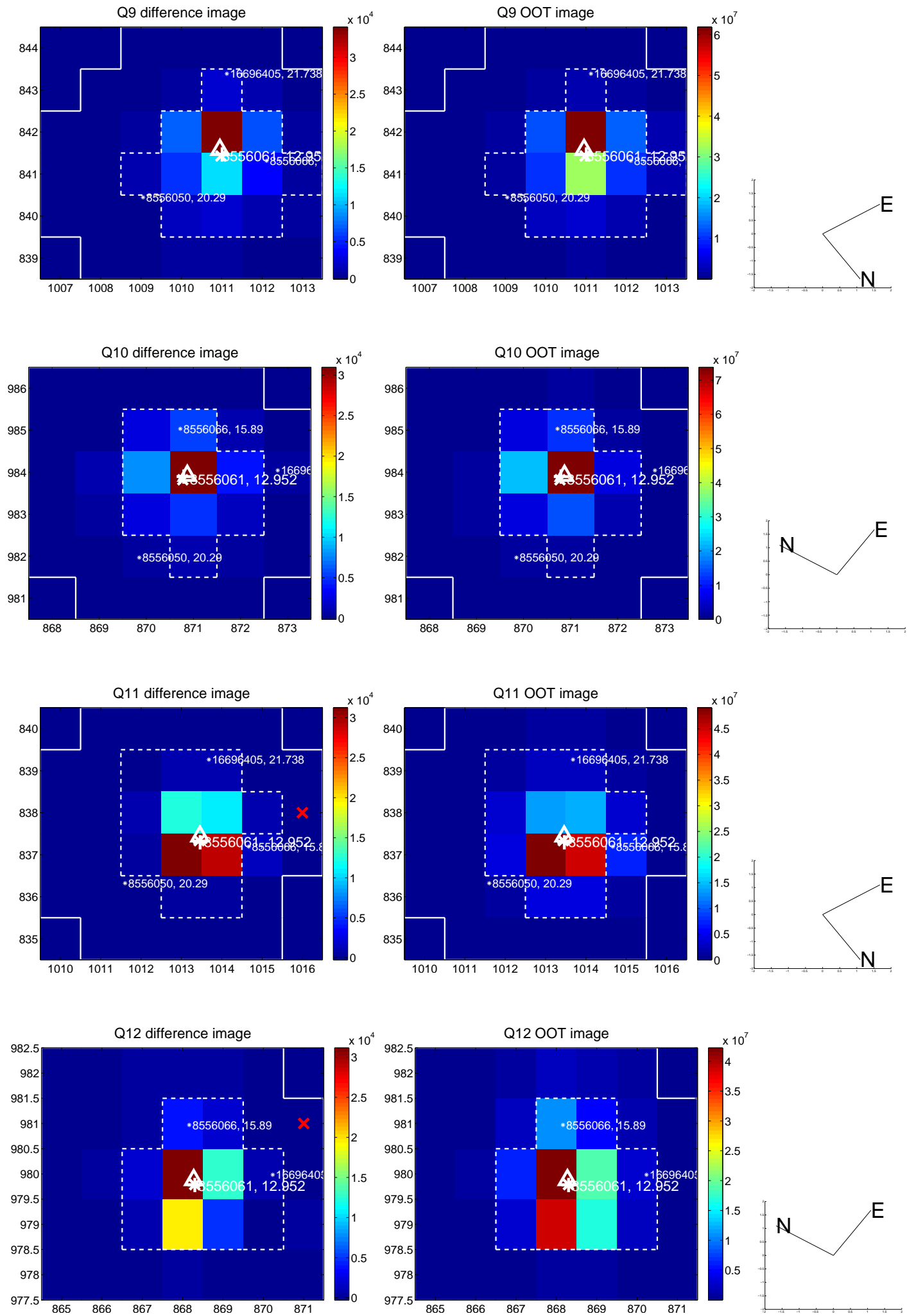
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



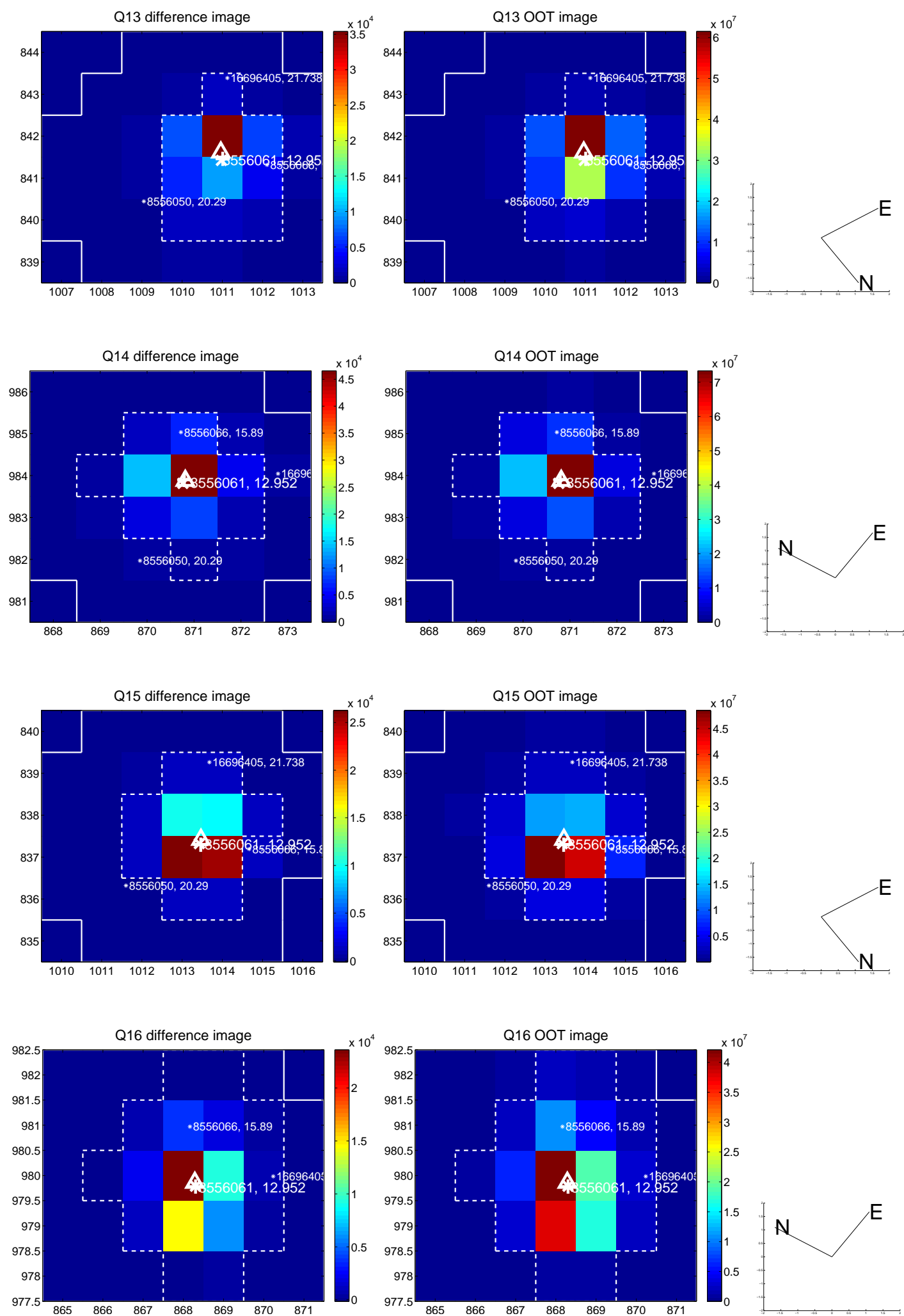
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



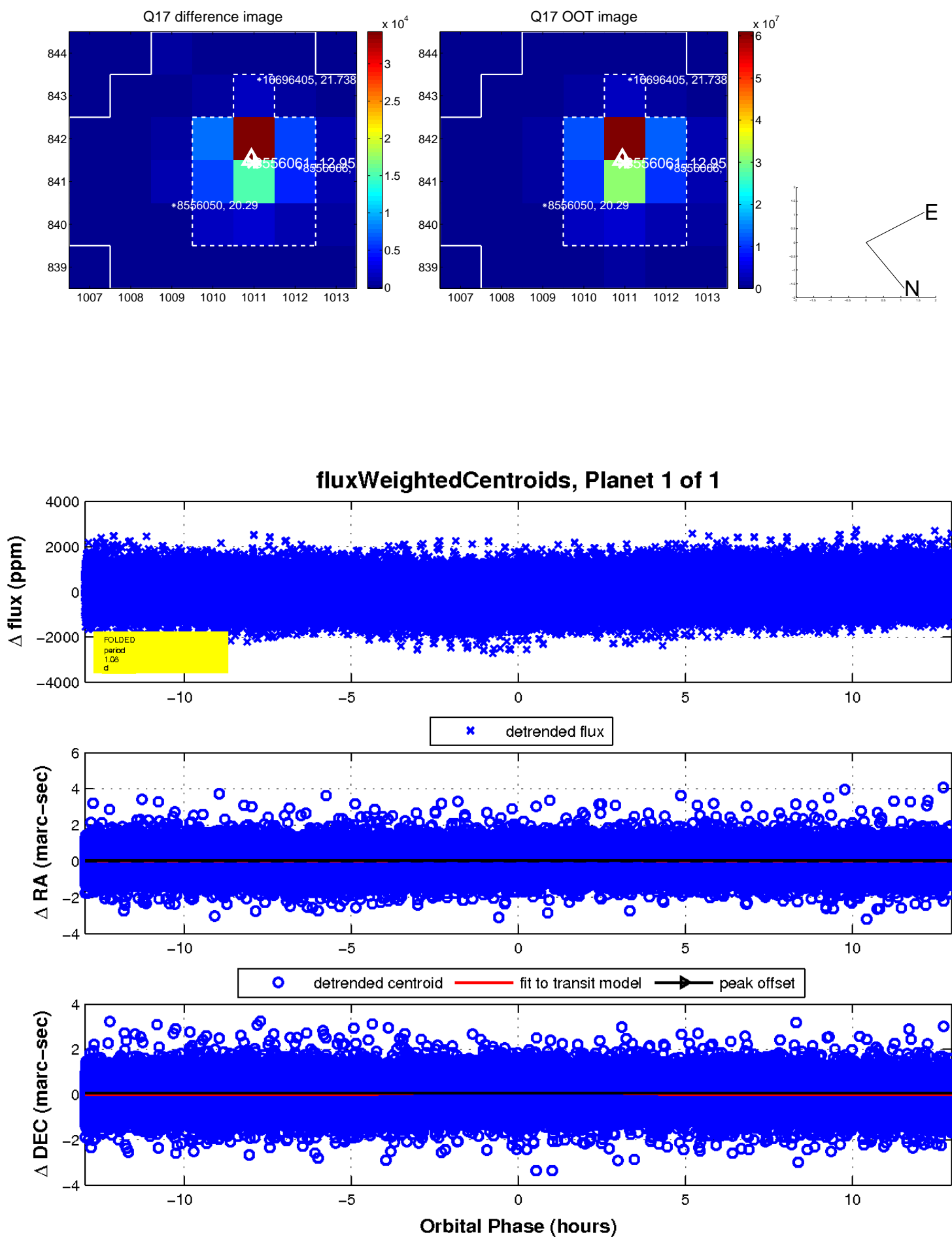
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

