

KIC 011355938

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})
011355938-01	OBS	No	0.683147	131.897426	48.6	1.117	7.4	8.6	3.21	8203	2.56	111877.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011355938-01	OBS	FP	0.00	1	0	0	0	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.

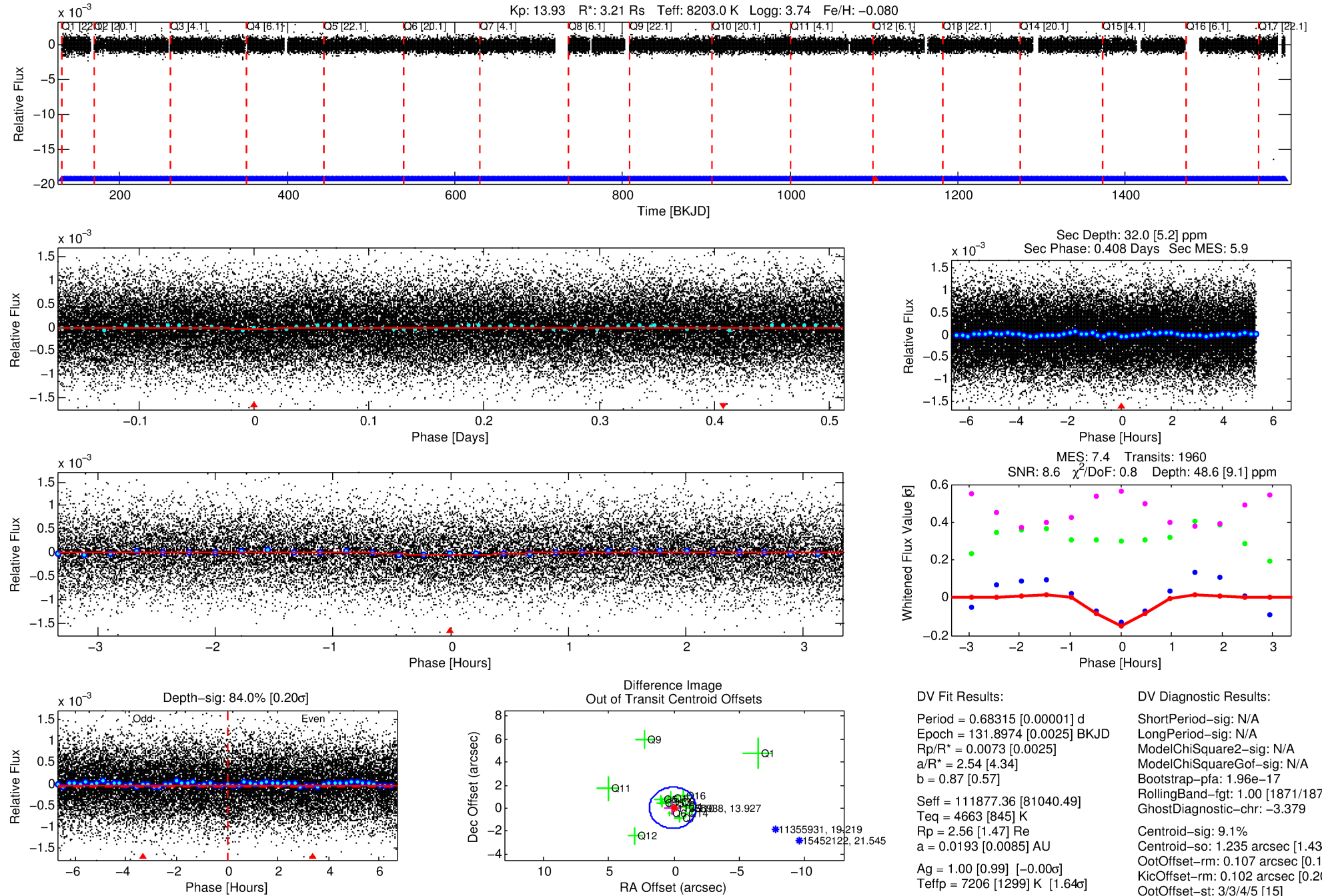
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011355938-01

No Significant Match Found

DV One-Page Summary

KIC: 11355938 Candidate: 1 of 1 Period: 0.683 d



DV Fit Results:

Period = 0.68315 [0.00001] d
Epoch = 131.8974 [0.0025] BKJD
Rp/R* = 0.0073 [0.0025]
a/R* = 2.54 [4.34]
b = 0.87 [0.57]
Seff = 111877.36 [81040.49]
Teff = 4663 [845] K
Rp = 2.56 [1.47] Re
a = 0.0193 [0.0085] AU
Ag = 1.00 [0.99] [-0.00 σ]
Teffp = 7206 [1299] K [1.64 σ]

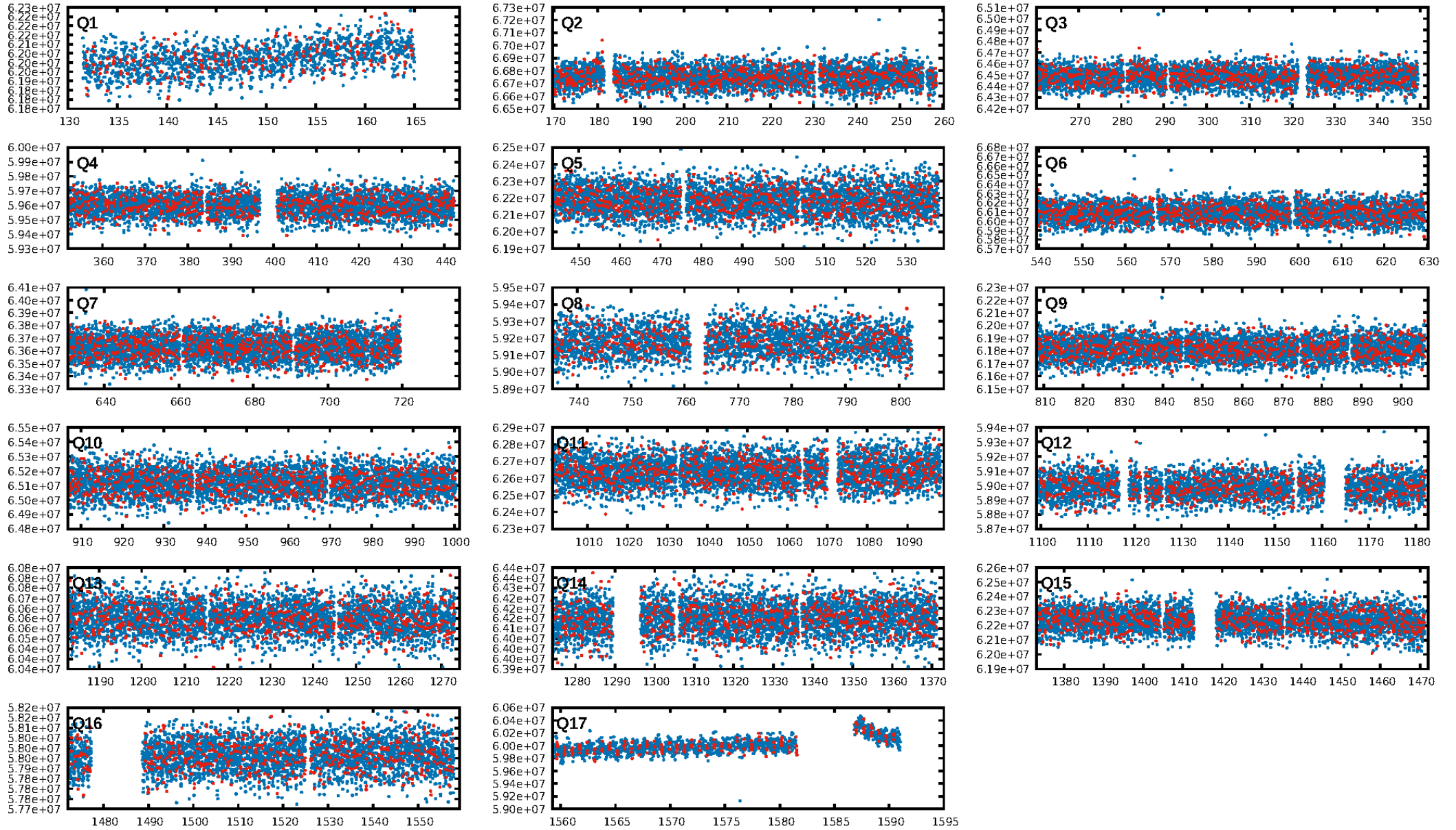
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.96e-17
RollingBand-fgt: 1.00 [1871/1872]
GhostDiagnostic-chr: -3.379
Centroid-sig: 9.1%
Centroid-so: 1.235 arcsec [1.43 σ]
OotOffset-rm: 0.107 arcsec [0.18 σ]
KicOffset-rm: 0.102 arcsec [0.20 σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-st: 3/3/4/5 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [17/17]

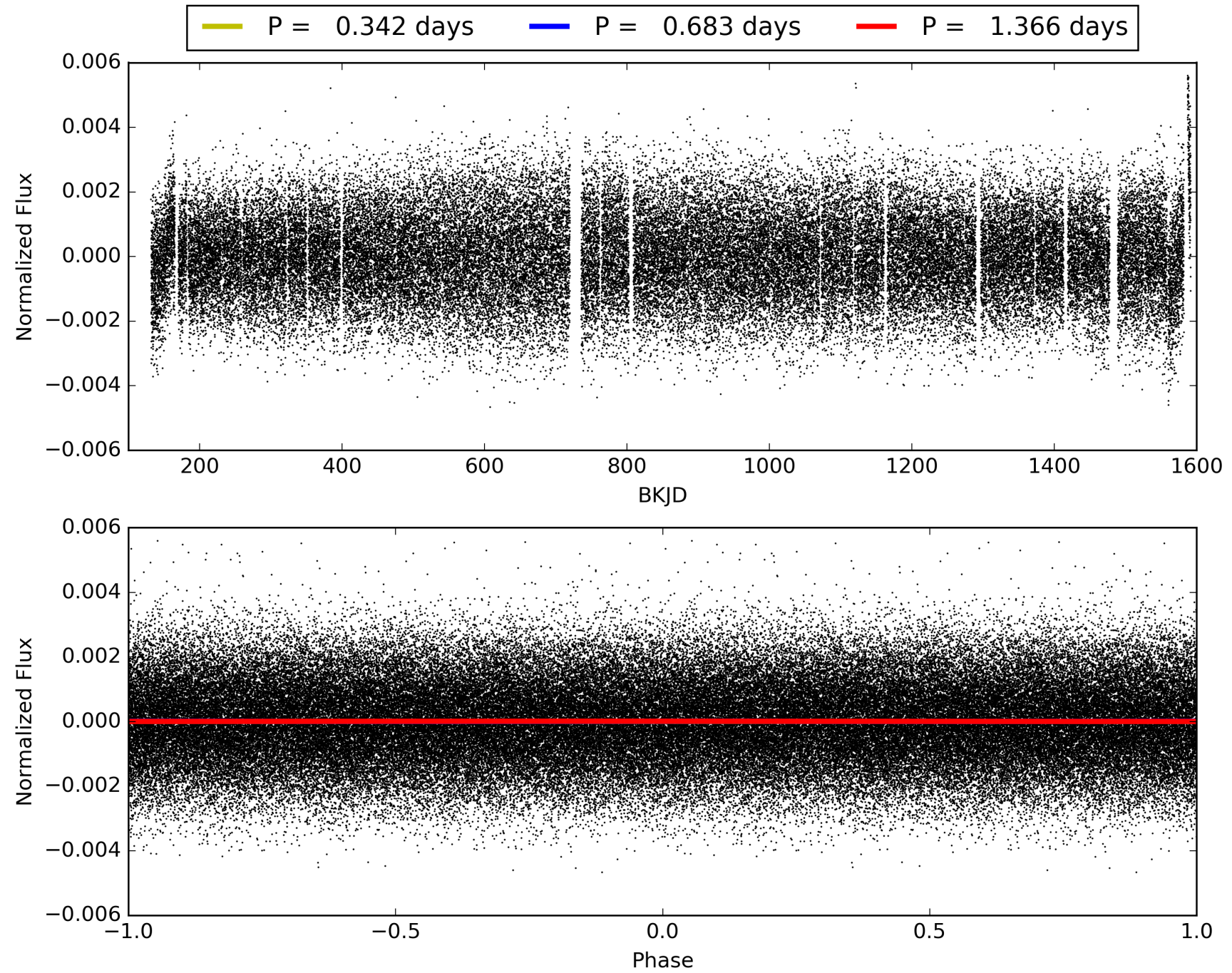
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:27:17 Z

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

TCE 011355938-01, PDC Light Curves

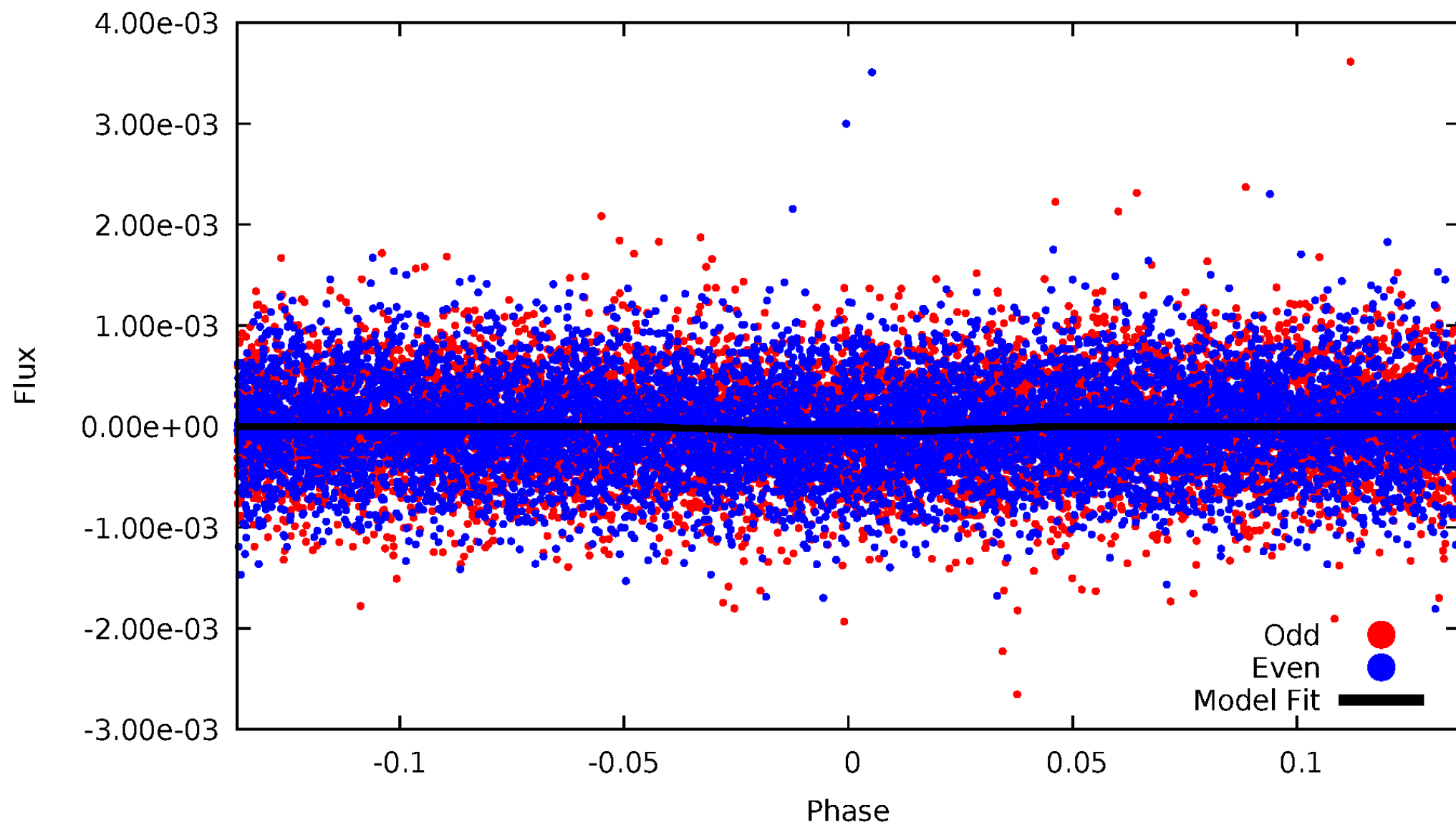


TCE 011355938-01



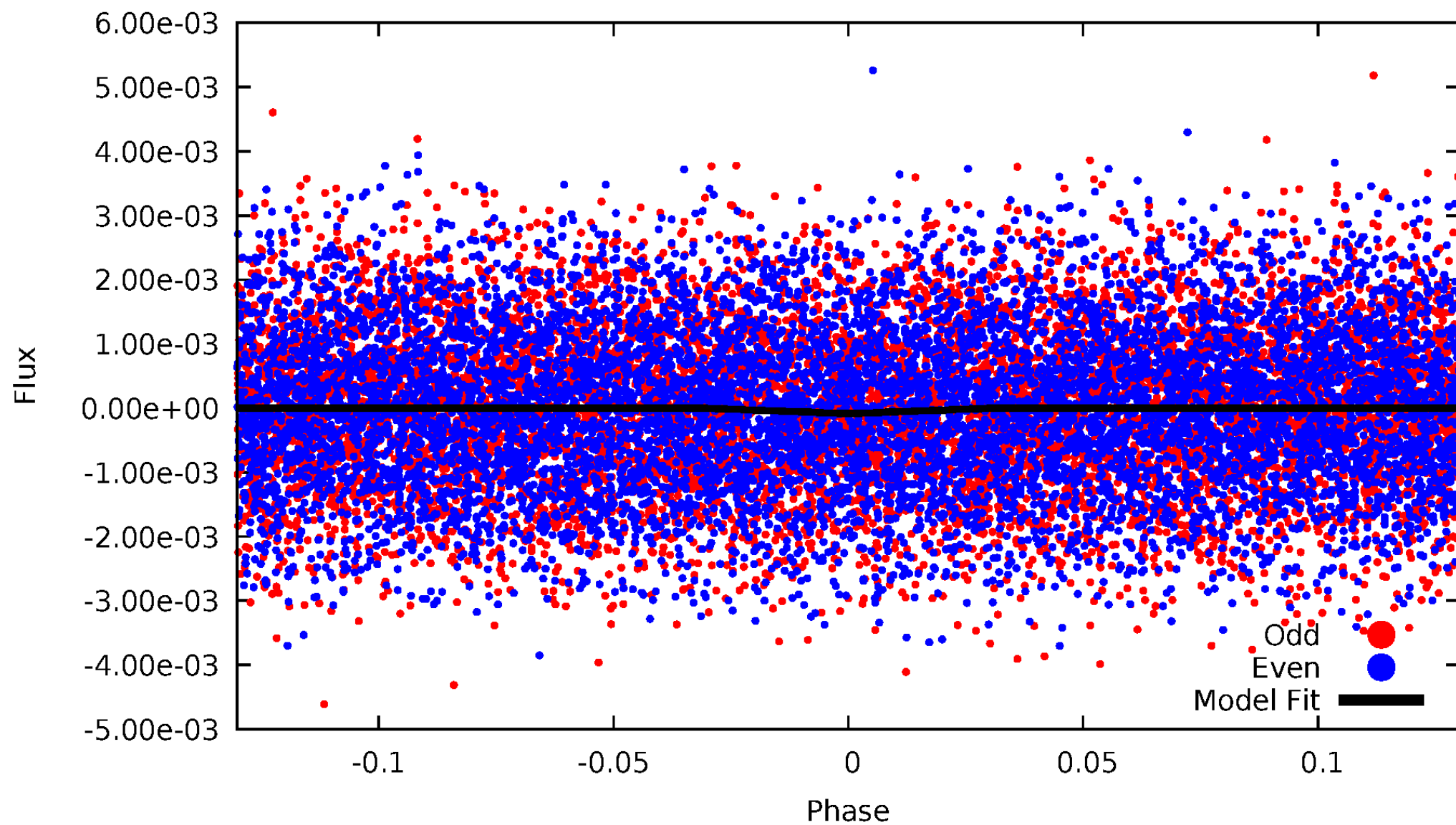
DV Odd/Even

TCE 011355938-01

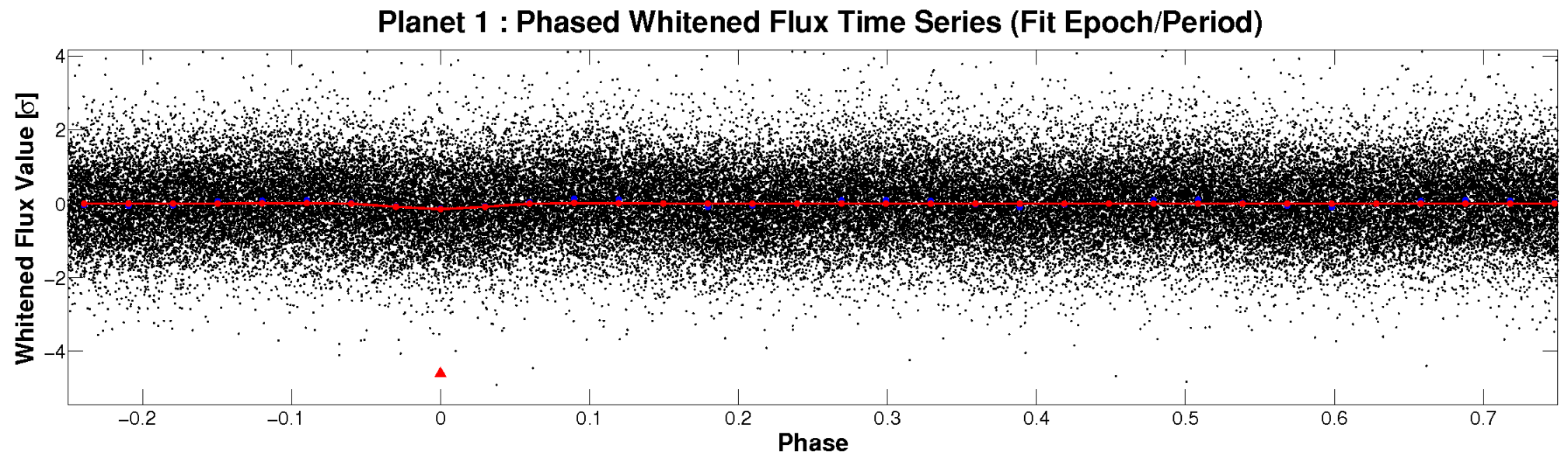
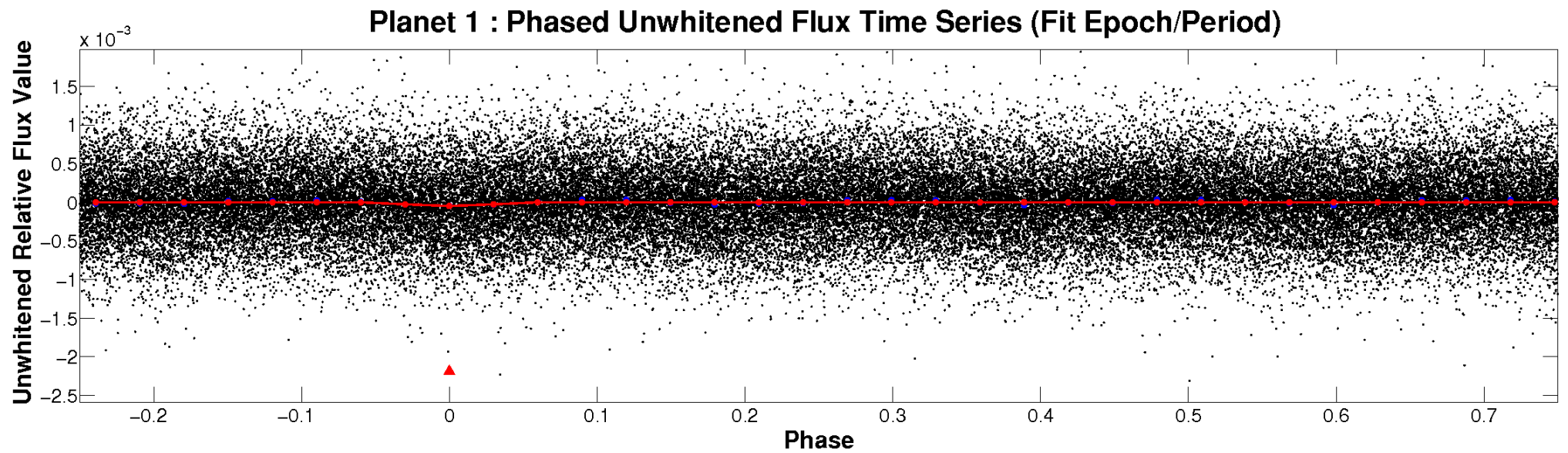


ALT Odd/Even

TCE 011355938-01

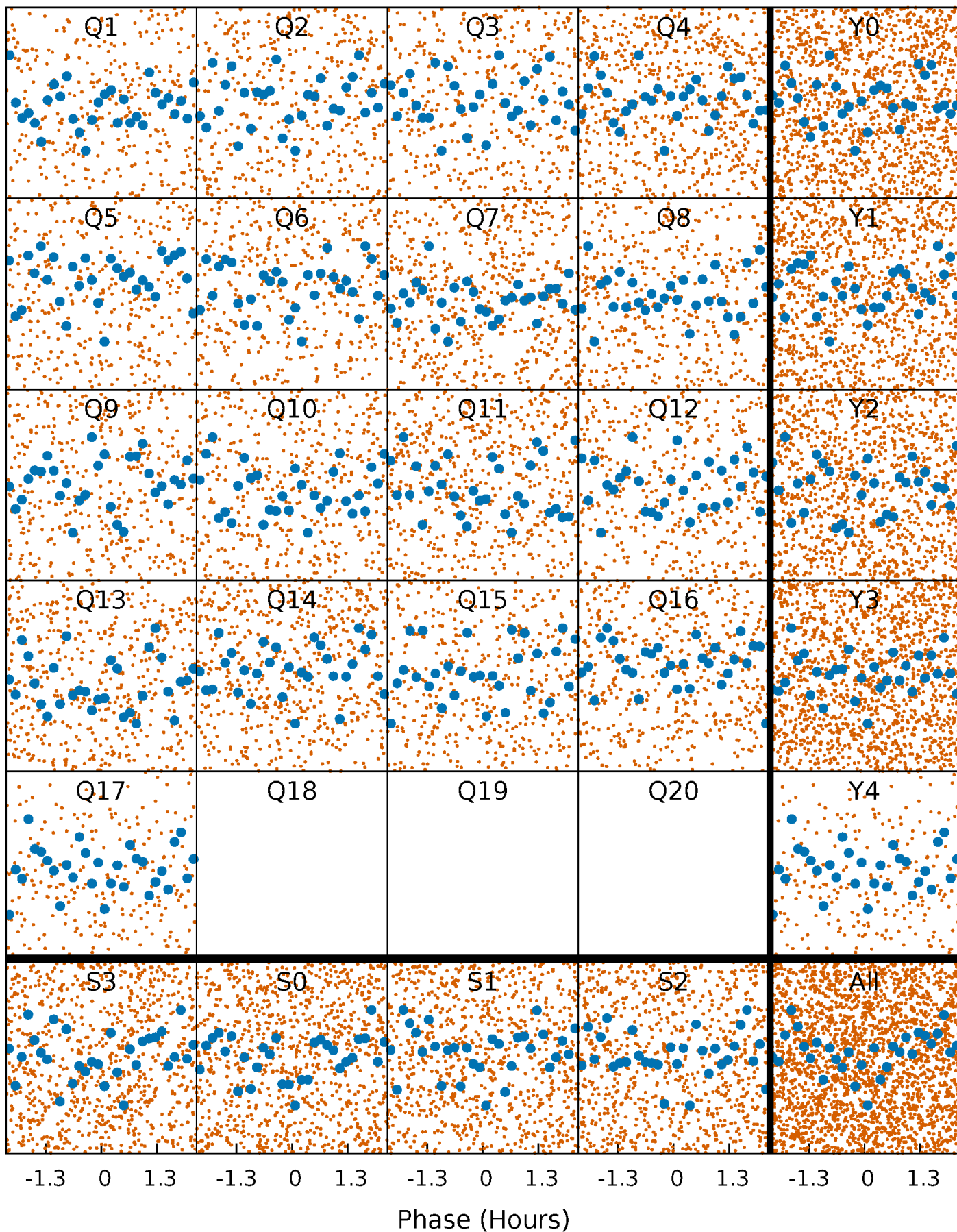


Non-Whitened Vs. Whitened Light Curve



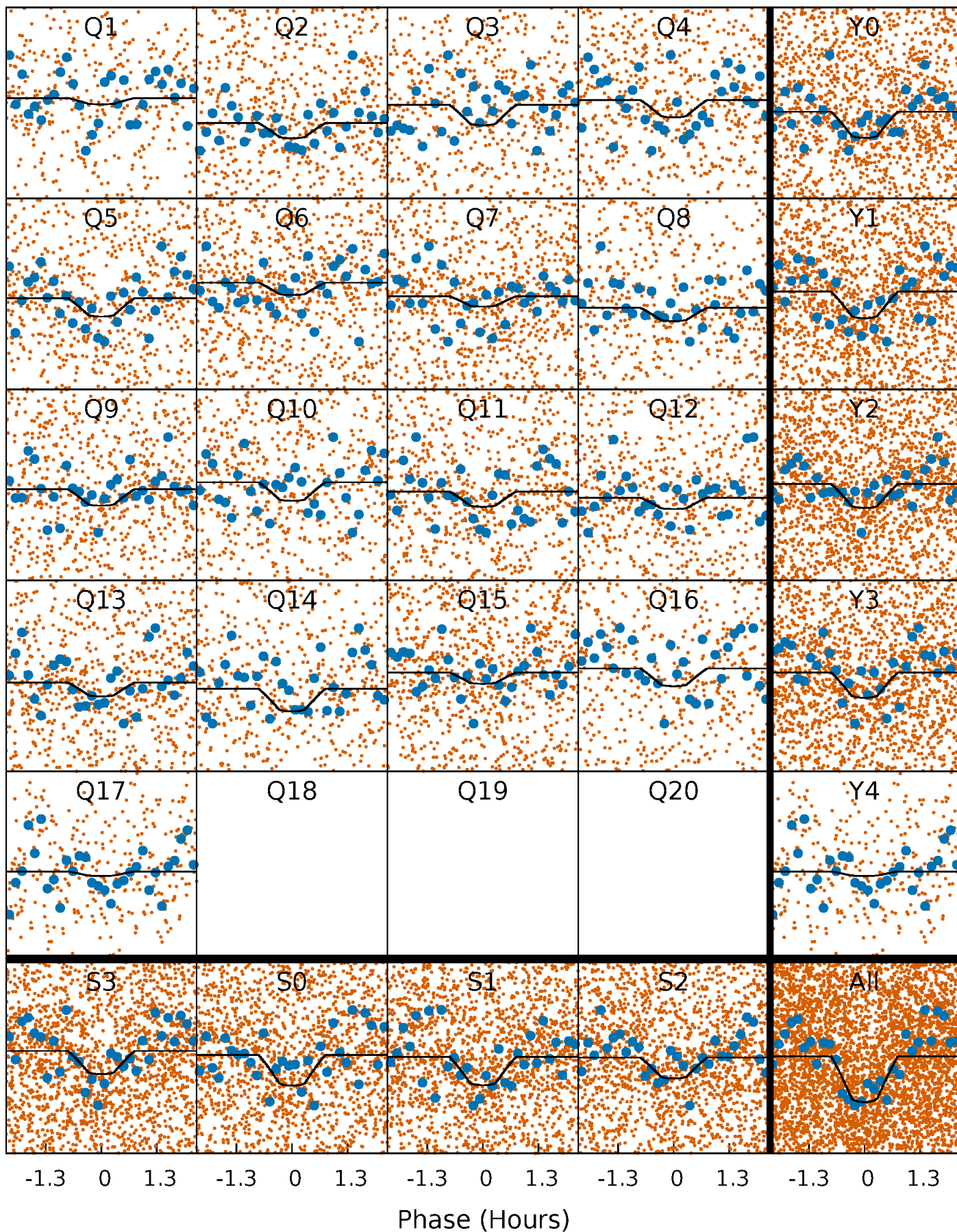
PDC Quarter-Phased Transit Curves

TCE 011355938-01 P= 0.683147 Days $T_0=131.897426$ (BKJD)



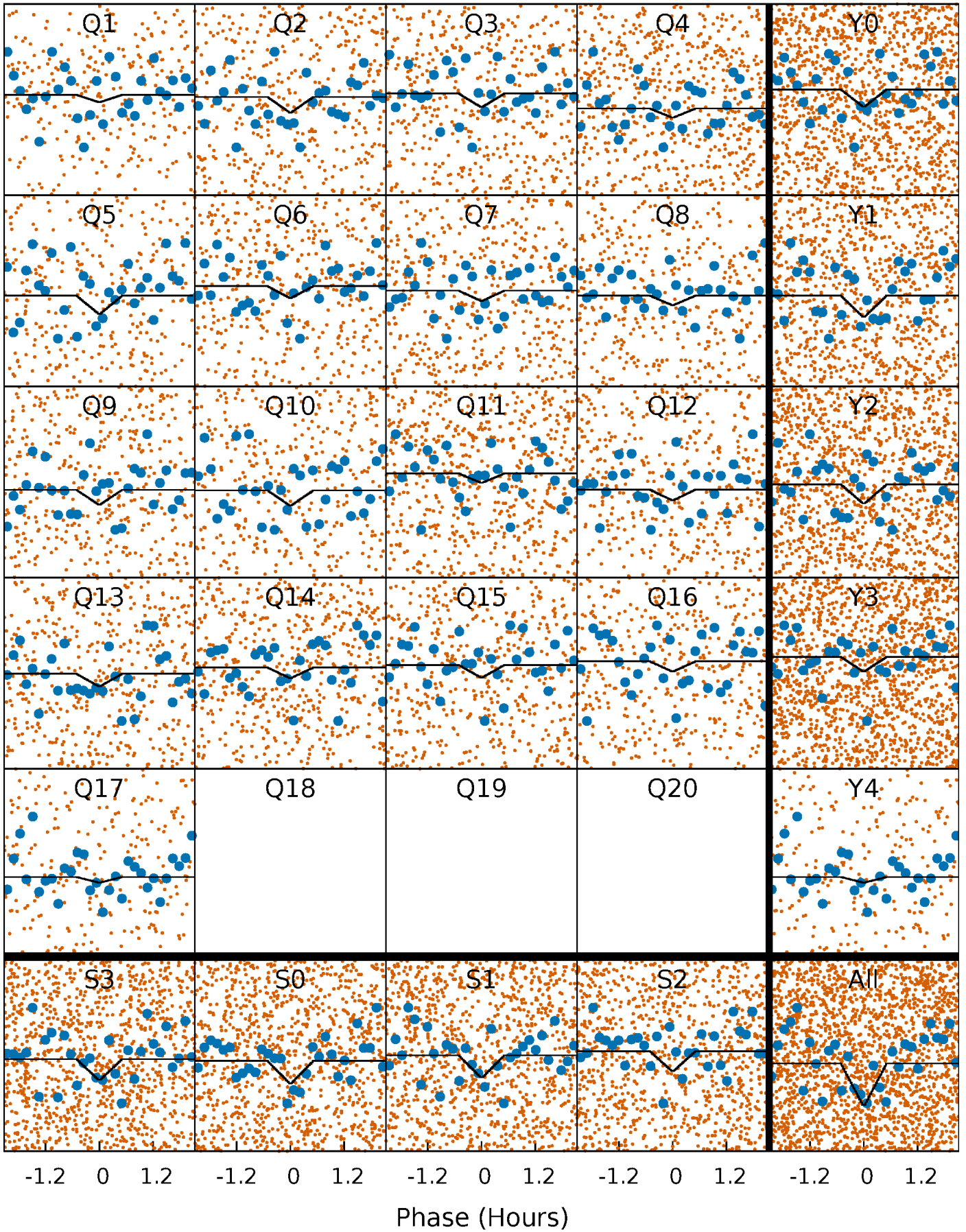
DV Quarter-Phased Transit Curves

TCE 011355938-01 P= 0.683147 Days $T_0=131.897426$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

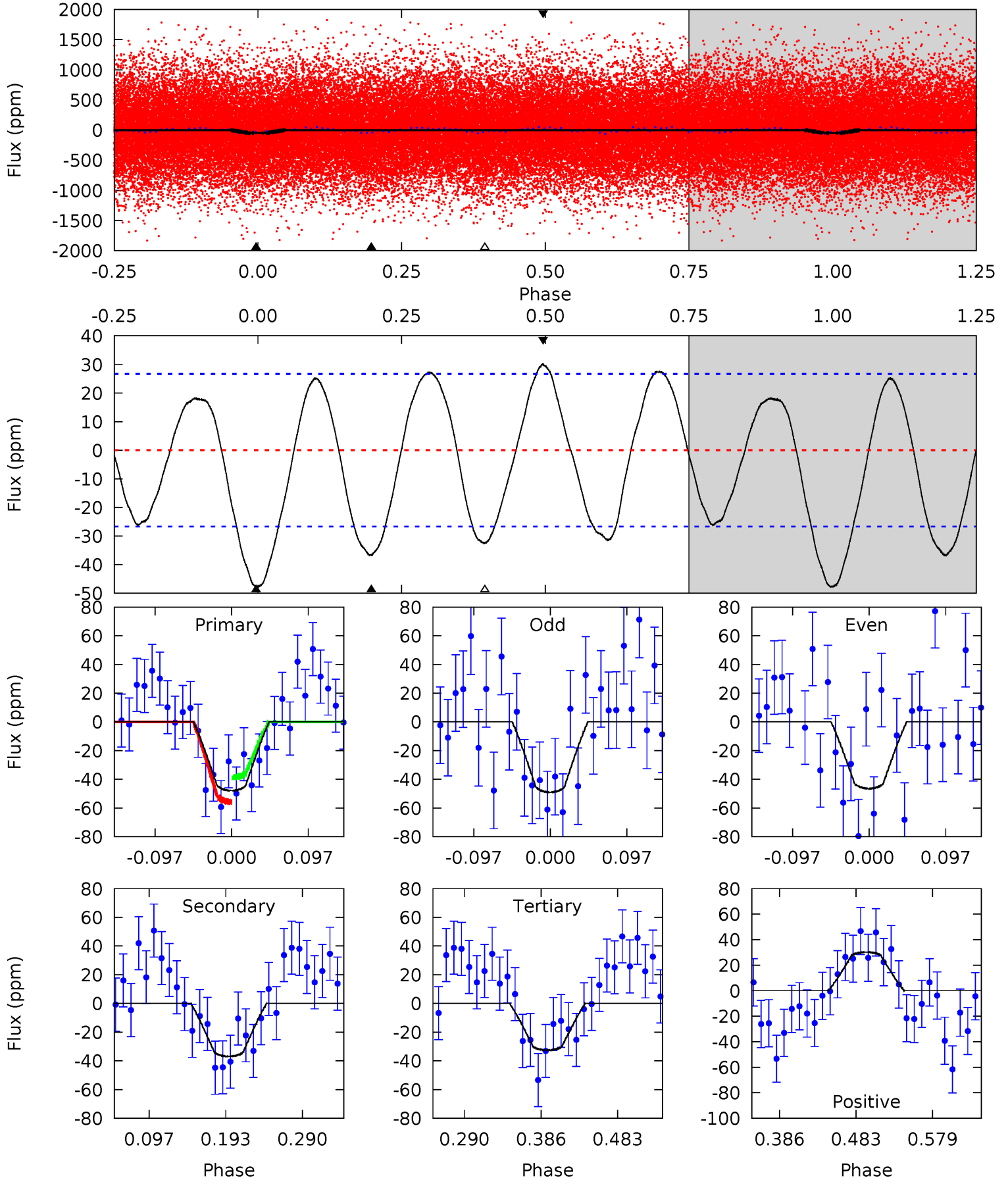
TCE 011355938-01 P= 0.683149 Days $T_0=131.894445$ (BKJD)



DV Model-Shift Uniqueness Test

011355938-01, P = 0.683147 Days, E = 131.214279 Days

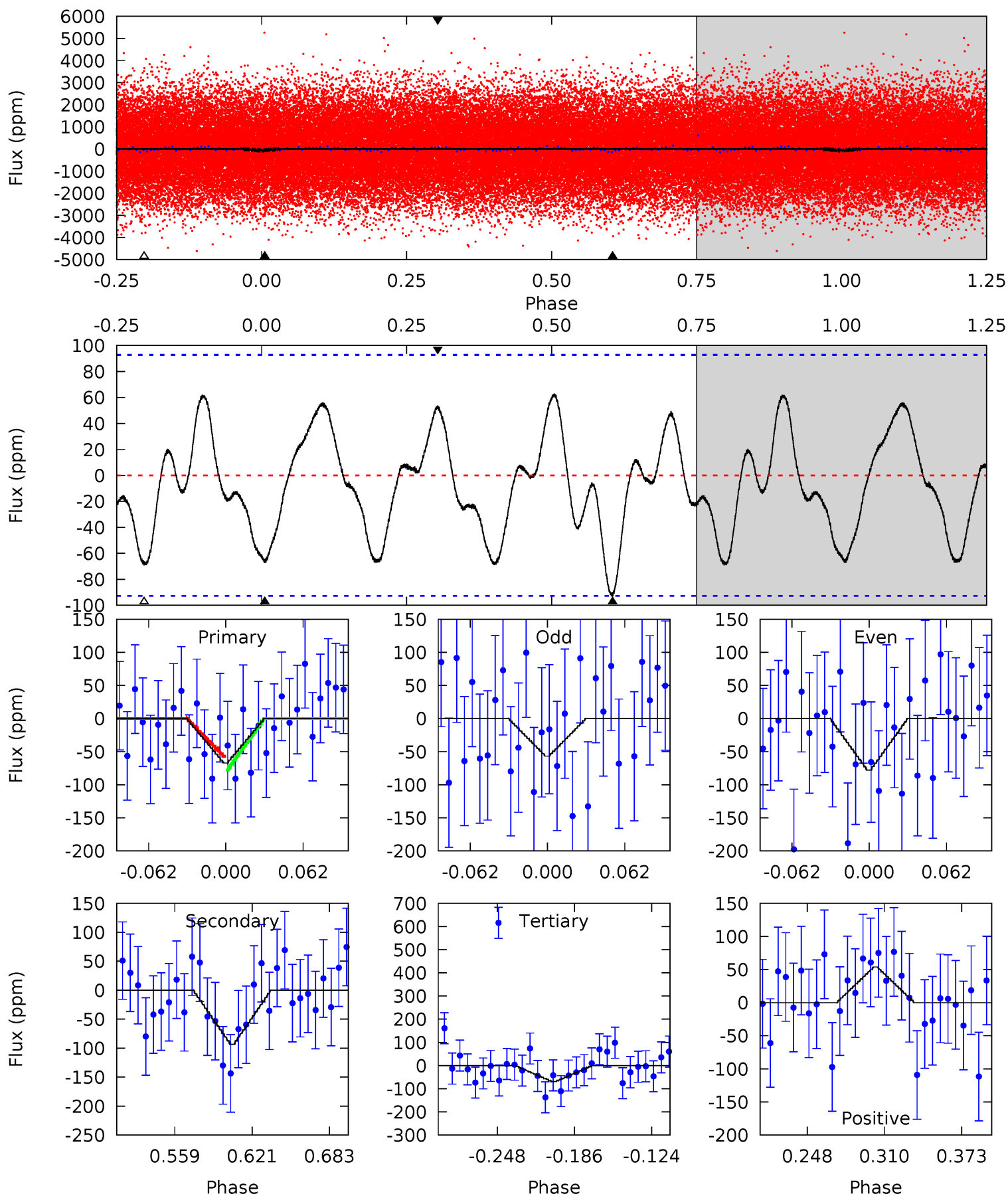
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.22	6.33	5.59	5.18	4.57	1.66	3.45	2.63	3.04	0.73	1.14	0.22	0.91	0.39	1.46



Alt Model-Shift Uniqueness Test

011355938-01, P = 0.683149 Days, E = 131.211296 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.38	4.69	3.49	2.71	4.66	1.87	1.75	-0.10	0.68	1.21	1.98	0.53	0.90	0.40	0.53



Stellar Parameters For KIC 011355938

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8203^{+228}_{-342}	$3.739^{+0.413}_{-0.110}$	$-0.080^{+0.250}_{-0.350}$	$3.206^{+0.798}_{-1.482}$	$2.054^{+0.330}_{-0.536}$	$0.088^{+0.366}_{-0.038}$
	+3%/-4%	+11%/-3%	+312%/-438%	+25%/-46%	+16%/-26%	+417%/-43%
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 011355938-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-37 ± 6	$2.31^{+0.98}_{-0.88}$	6294^{+511}_{-642}	6815^{+2530}_{-1299}	$1.412^{+2.093}_{-0.699}$
Alt.	-93 ± 20	$2.82^{+1.23}_{-0.94}$	6260^{+511}_{-729}	8040^{+2649}_{-1470}	$2.324^{+3.131}_{-1.174}$

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 $A_{obs} \gg 1.0$

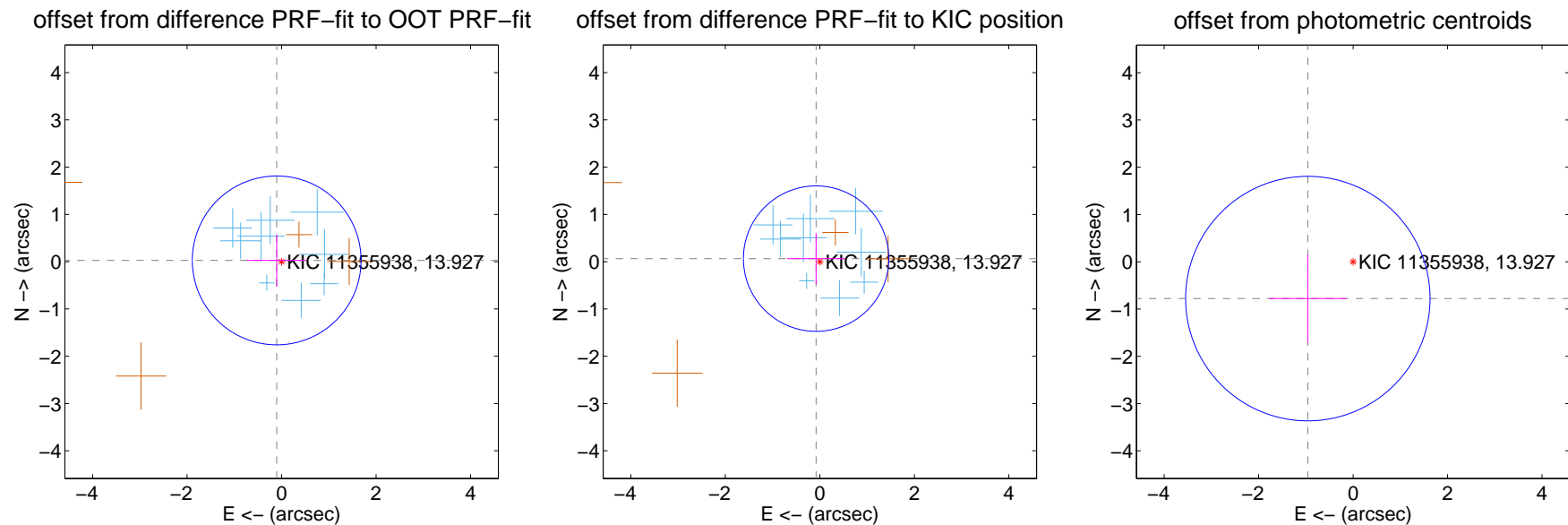
DV Centroid Data

Supplemental centroid analysis for 011355938-01. Kepler magnitude: 13.93. Transit SNR 8.65

There are 9 quarters with good PRF difference image offsets

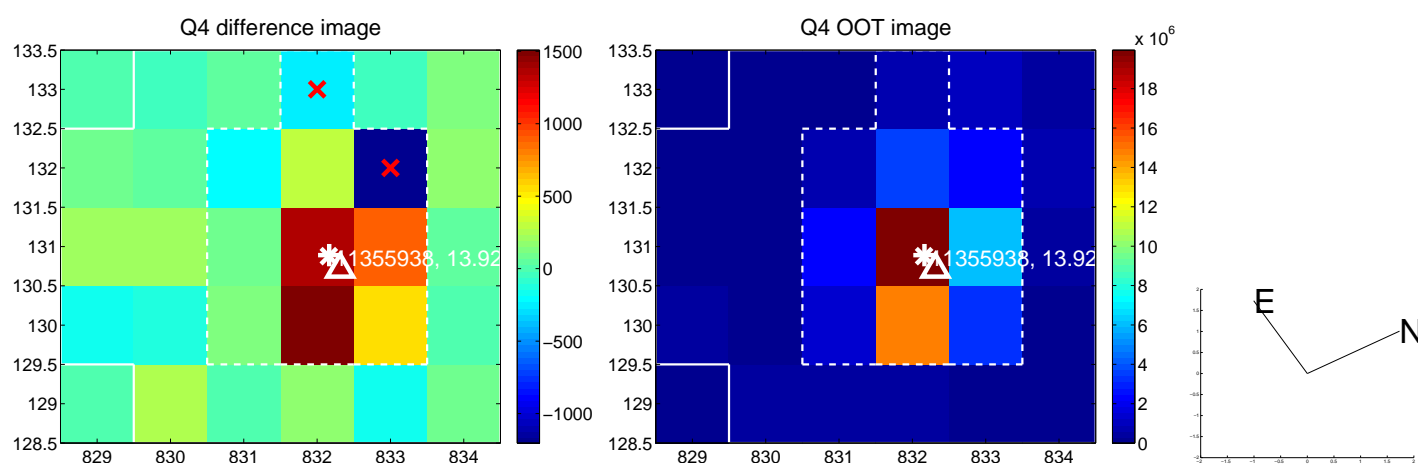
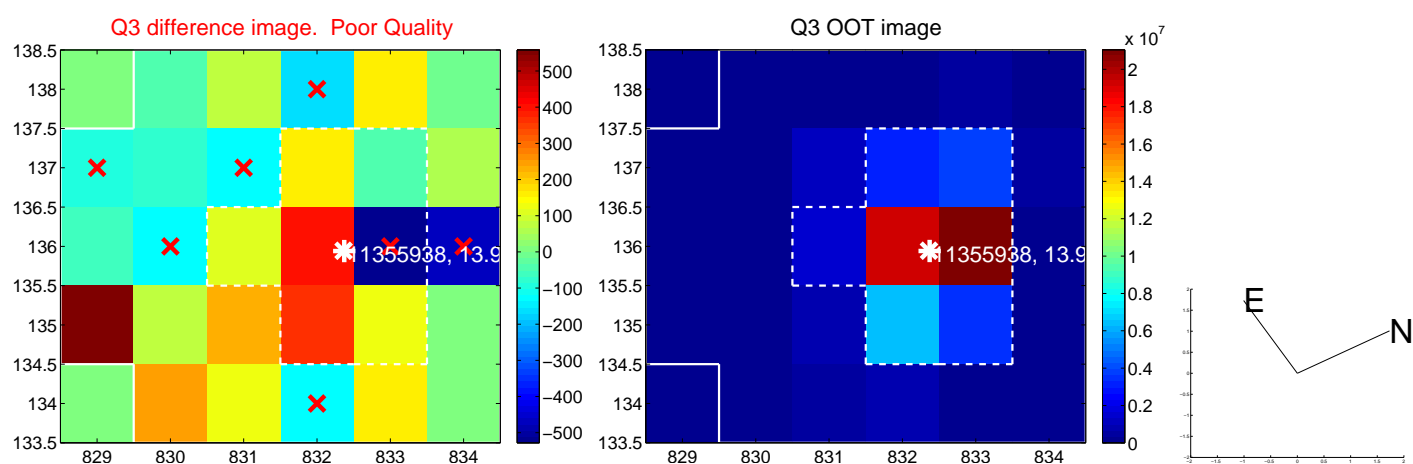
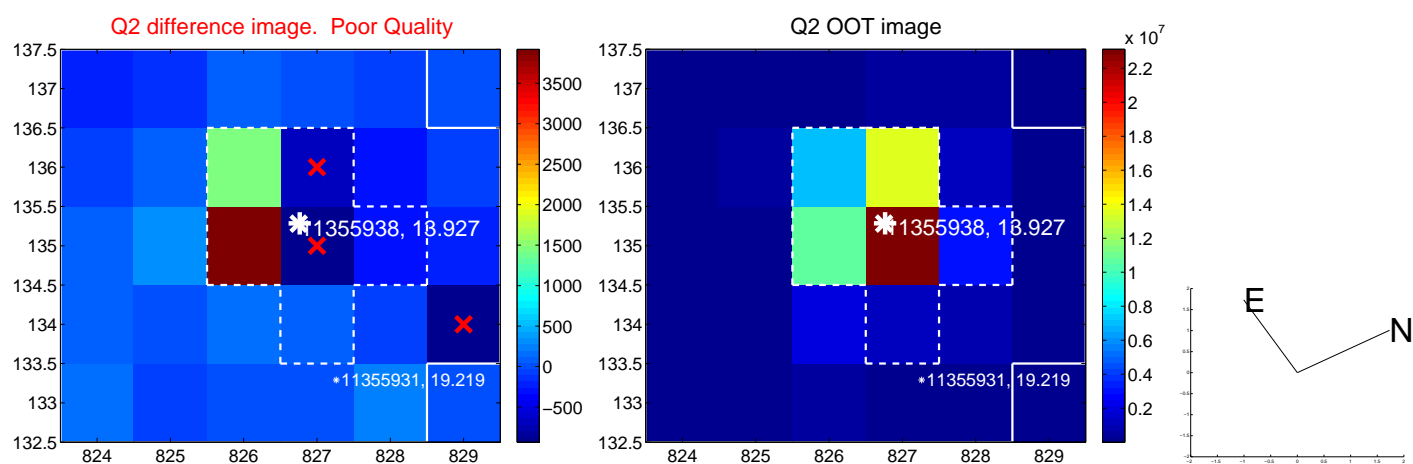
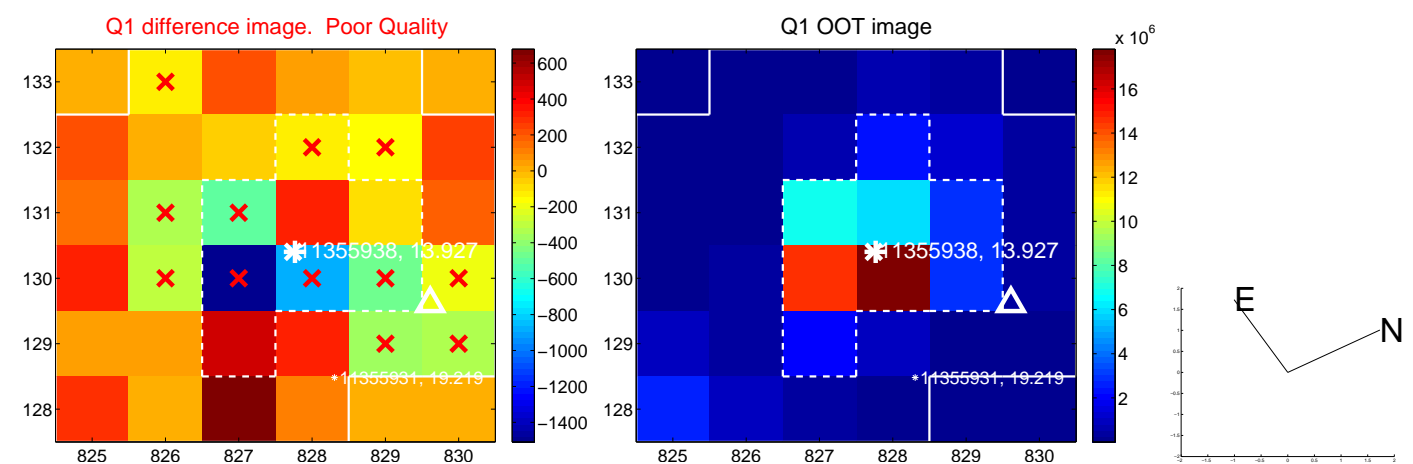
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.107 ± 0.595	0.18	0.103 ± 0.633	0.027 ± 0.551
PRF-fit source offset from KIC position	0.102 ± 0.513	0.20	0.079 ± 0.612	0.065 ± 0.536
photometric centroid source offset	1.24 ± 0.86	1.43	0.96 ± 0.82	-0.78 ± 0.93

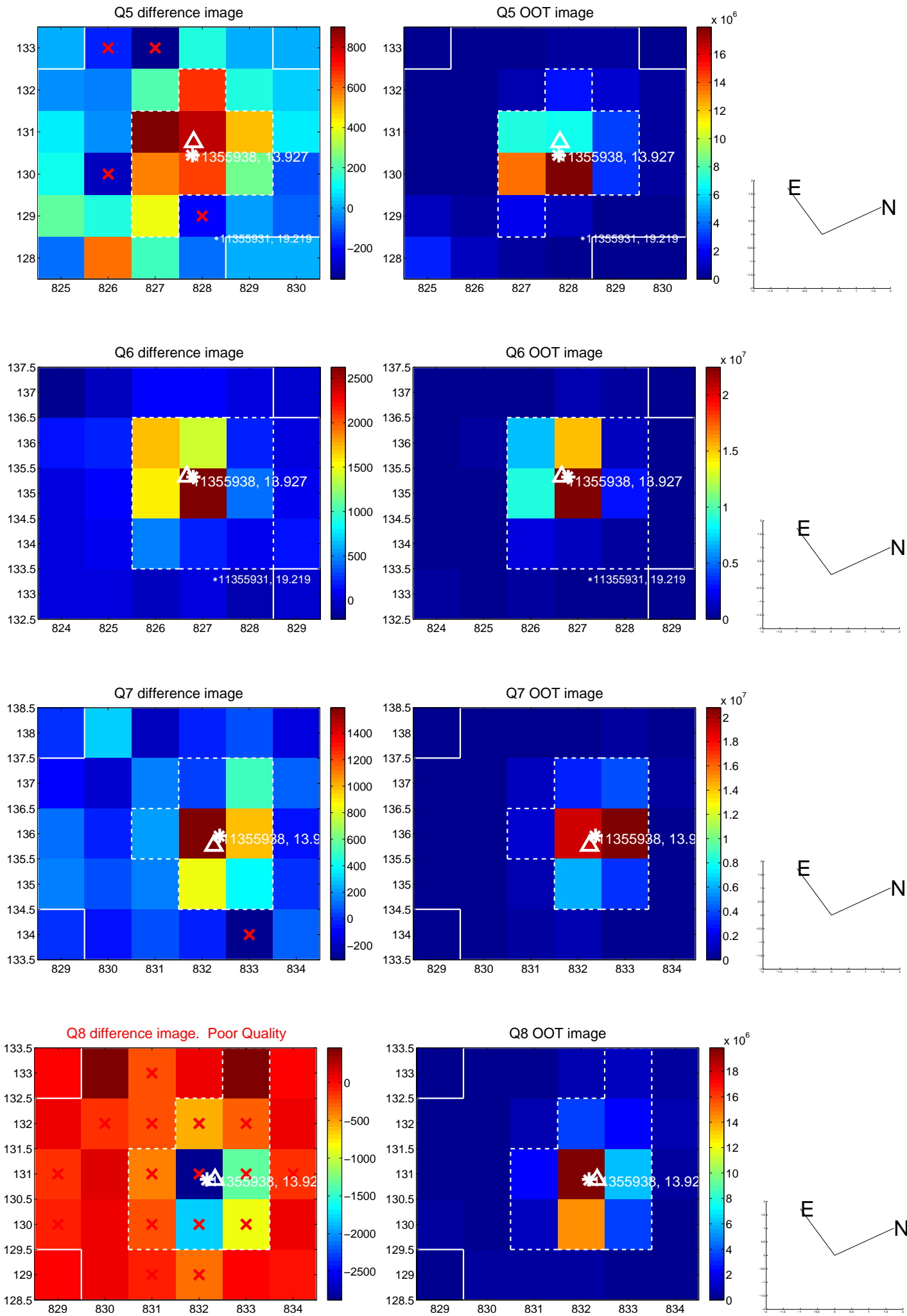


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

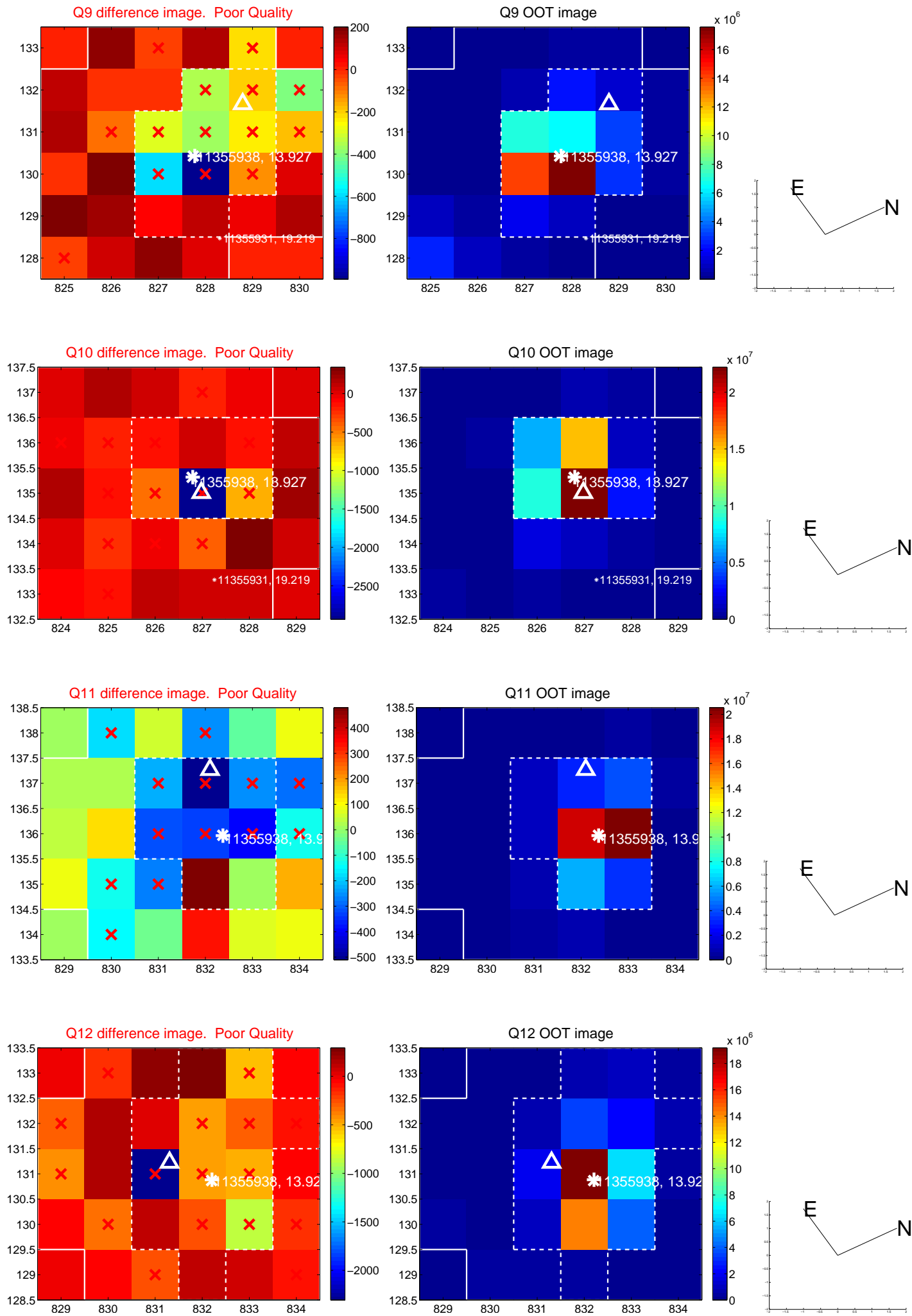
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



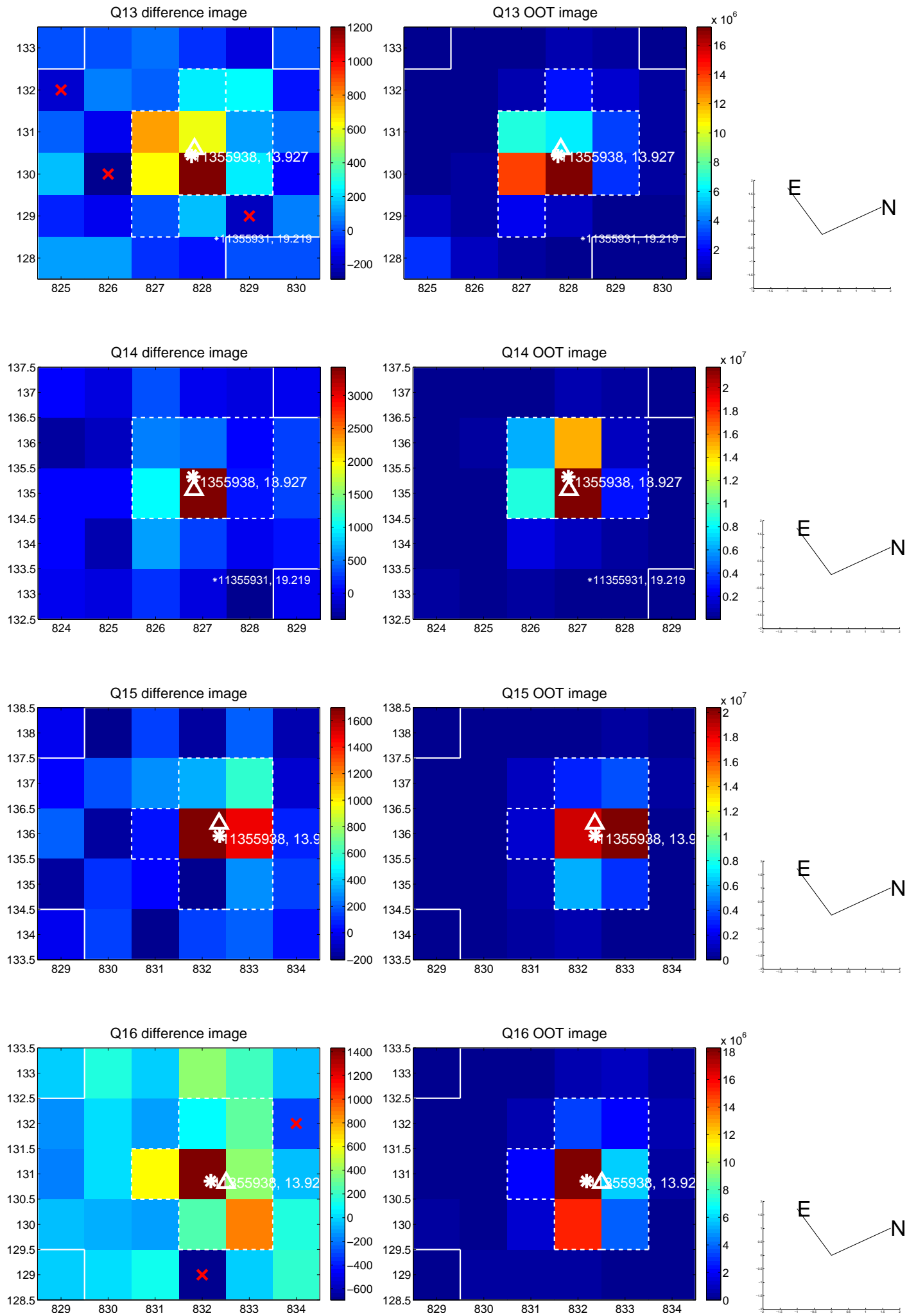
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



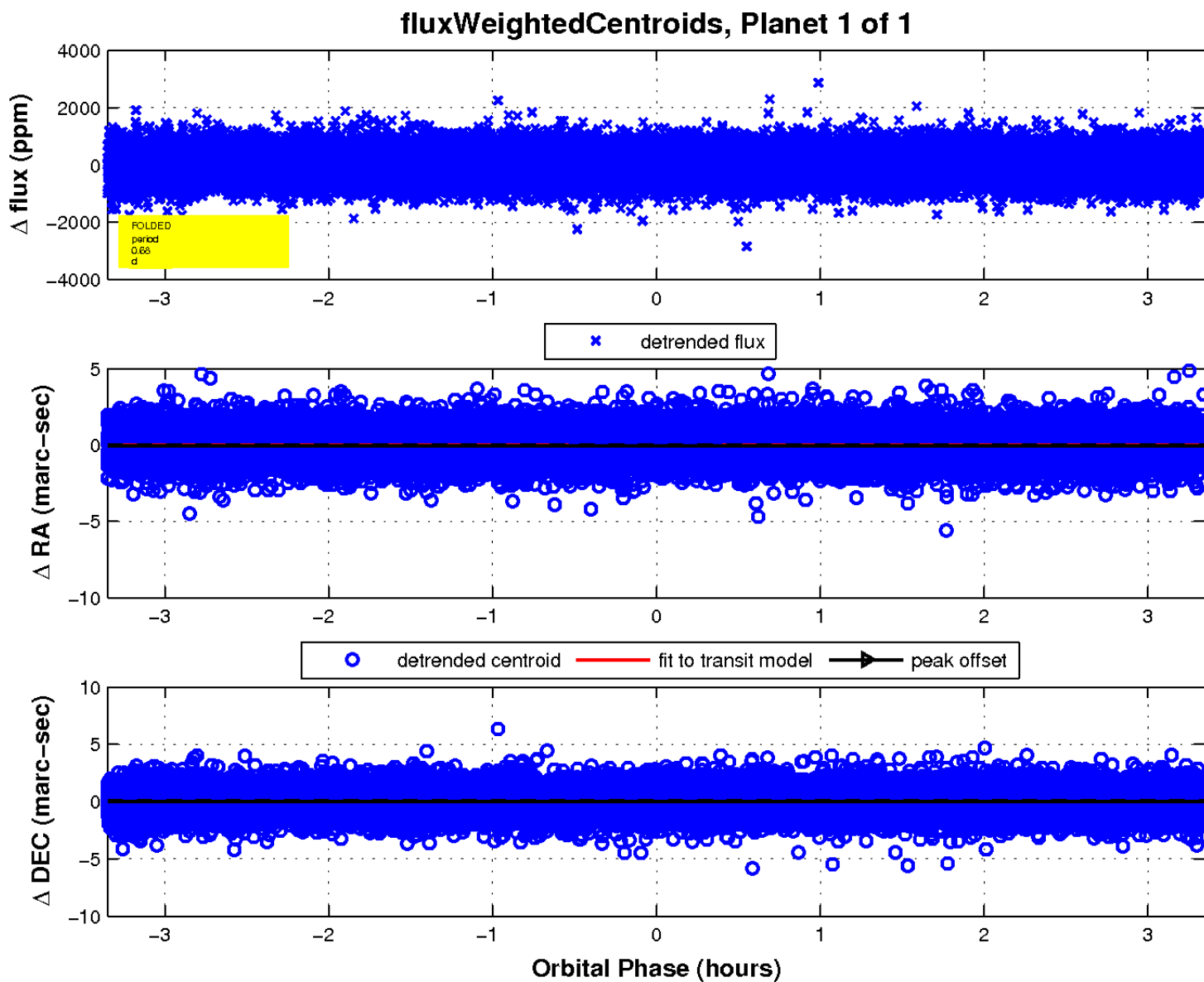
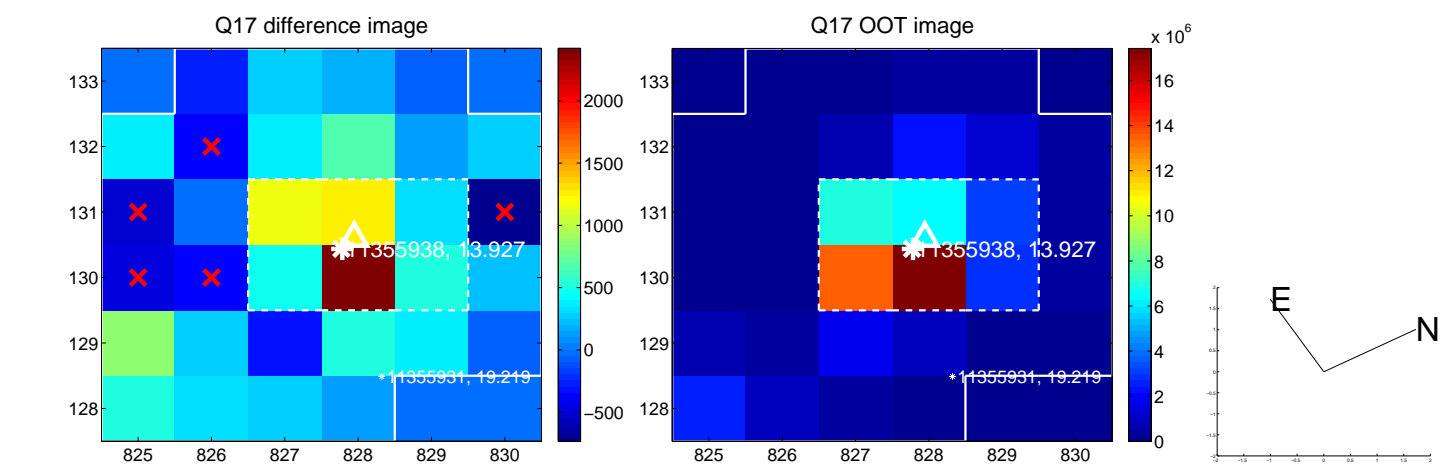
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UKIRT Image

Declination

