

KIC 008058241

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})
008058241-01	OBS	No	3.444695	134.383622	14.9	10.652	8.0	7.3	2.29	7214	1.08	4753.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008058241-01	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.

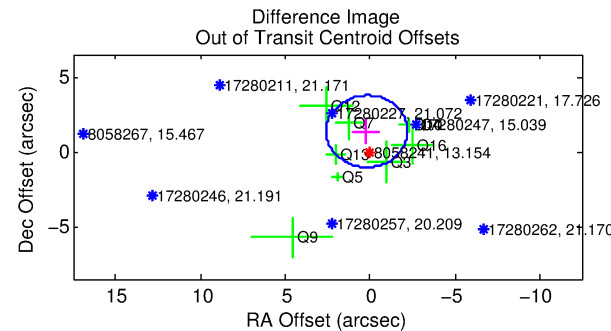
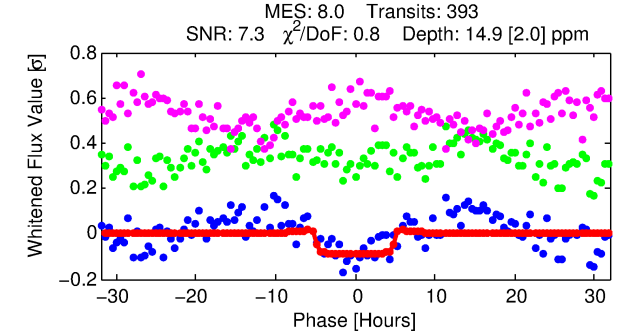
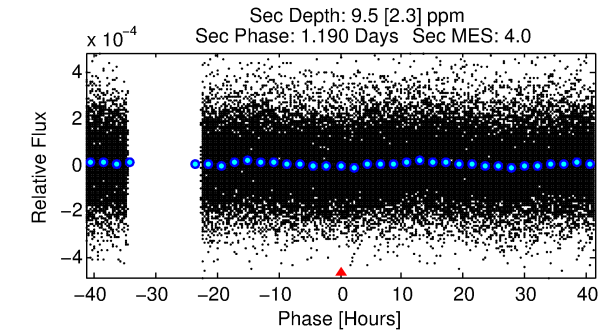
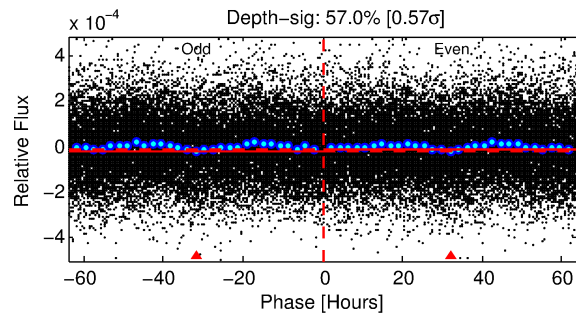
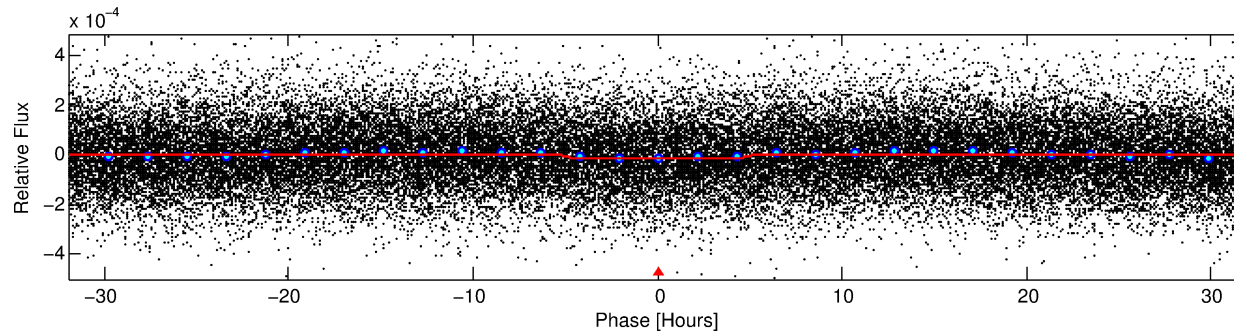
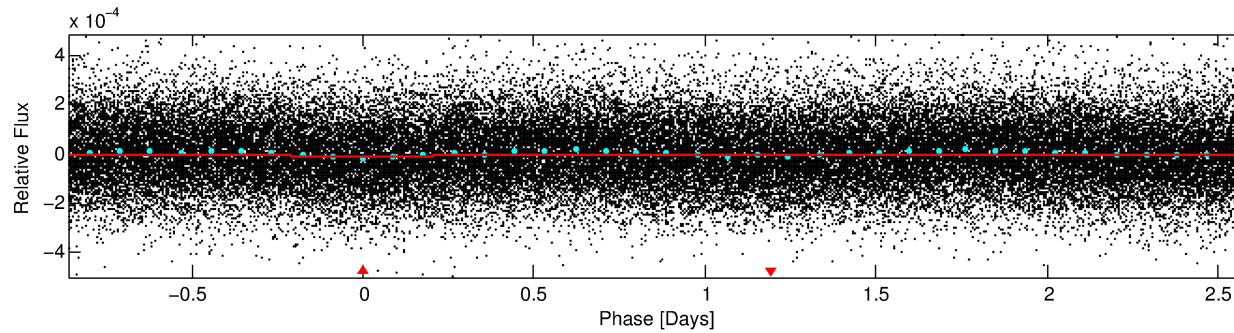
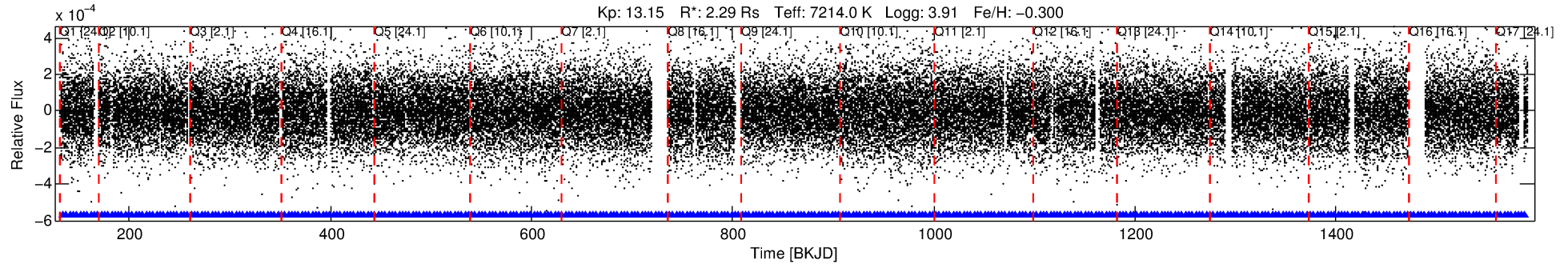
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008058241-01

No Significant Match Found

DV One-Page Summary

KIC: 8058241 Candidate: 1 of 1 Period: 3.445 d



DV Fit Results:

Period = 3.44470 [0.00007] d
Epoch = 134.3836 [0.0130] BKJD
Rp/R* = 0.0043 [0.0008]
a/R* = 1.26 [0.52]
b = 0.95 [0.12]
Seff = 4753.36 [2925.01]
Teq = 2117 [326] K
Rp = 1.08 [0.47] Re
a = 0.0518 [0.0194] AU
Ag = 12.05 [8.87] [1.25 σ]
Teffp = 6099 [714] K [5.08 σ]

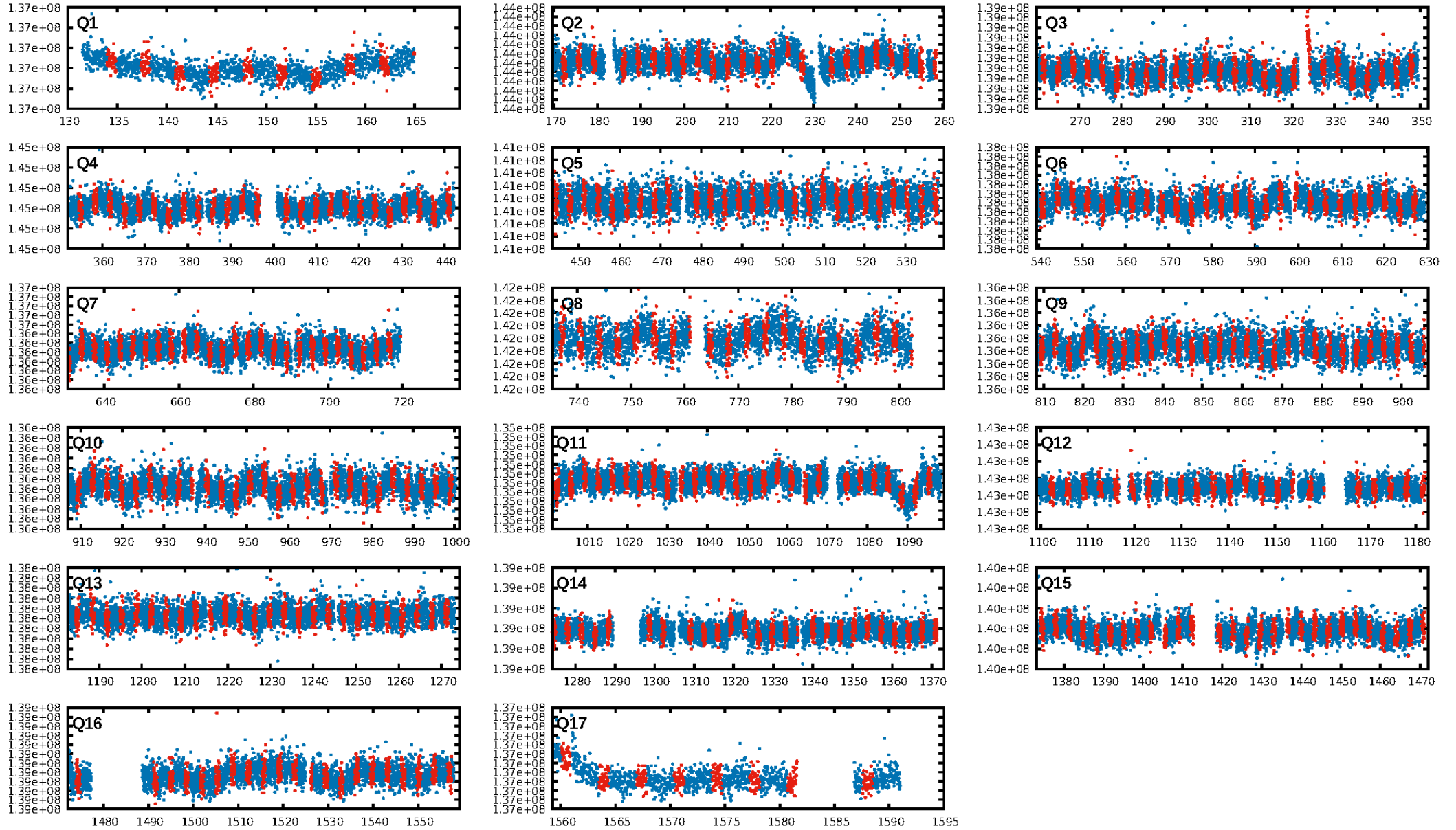
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.99e-13
RollingBand-fgt: 1.00 [376/376]
GhostDiagnostic-chr: -2.815
Centroid-sig: 60.1%
Centroid-so: 0.991 arcsec [0.50 σ]
OotOffset-rm: 1.372 arcsec [1.72 σ]
KicOffset-rm: 1.439 arcsec [1.95 σ]
OotOffset-st: 1/2/3/3 [9]
KicOffset-st: 1/2/3/3 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 1.00 [17/17]

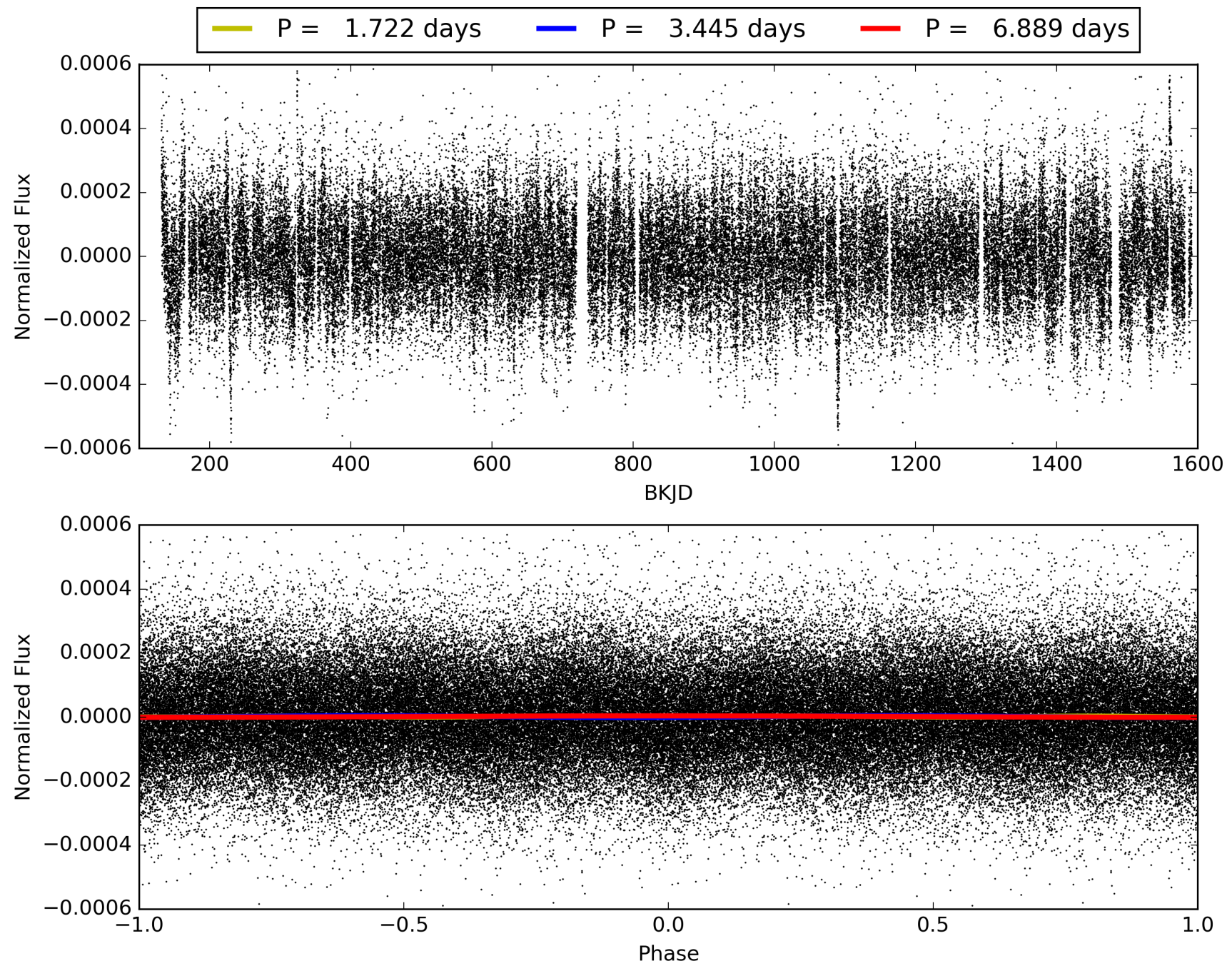
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:04:36 Z

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

TCE 008058241-01, PDC Light Curves

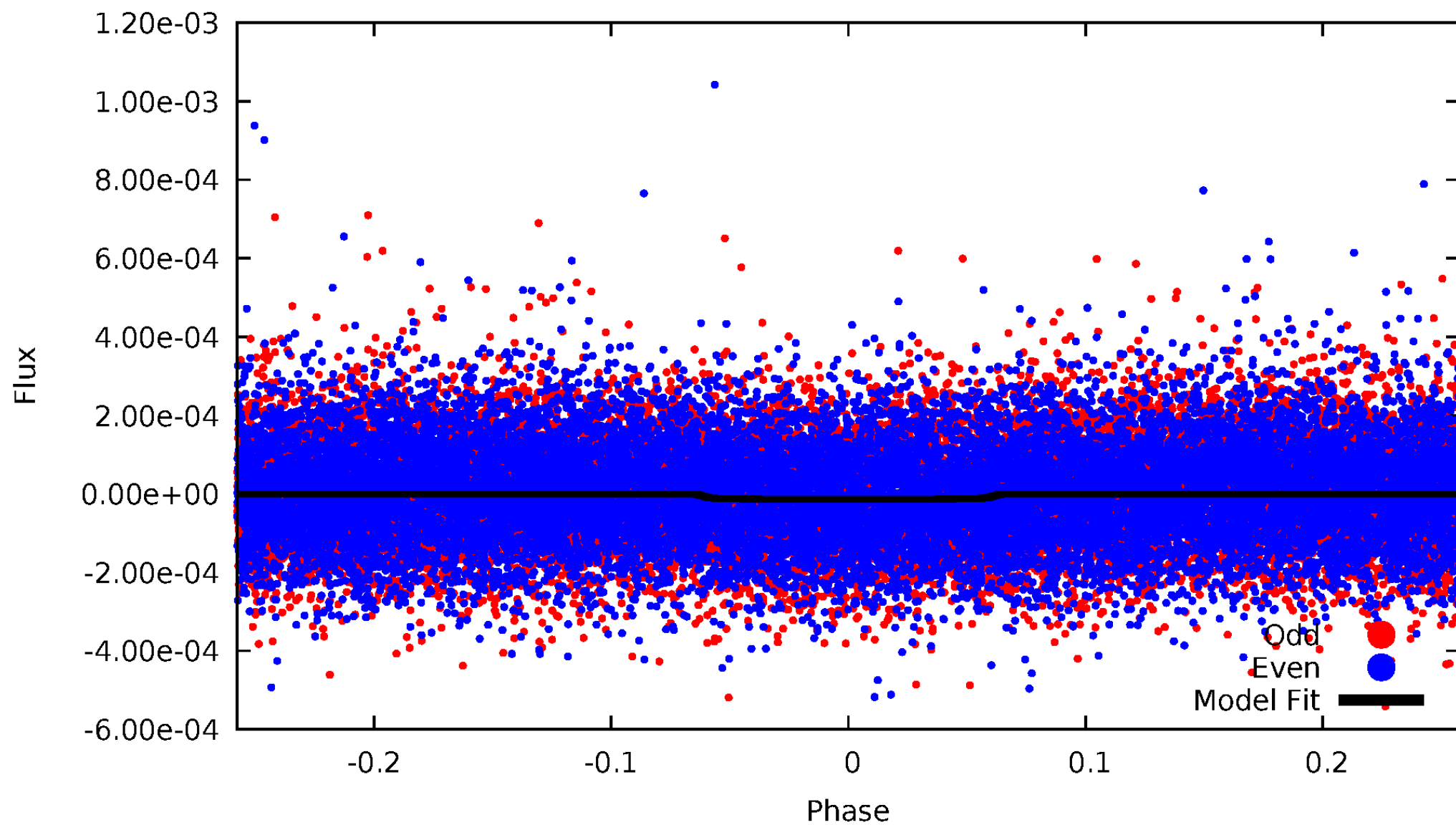


TCE 008058241-01



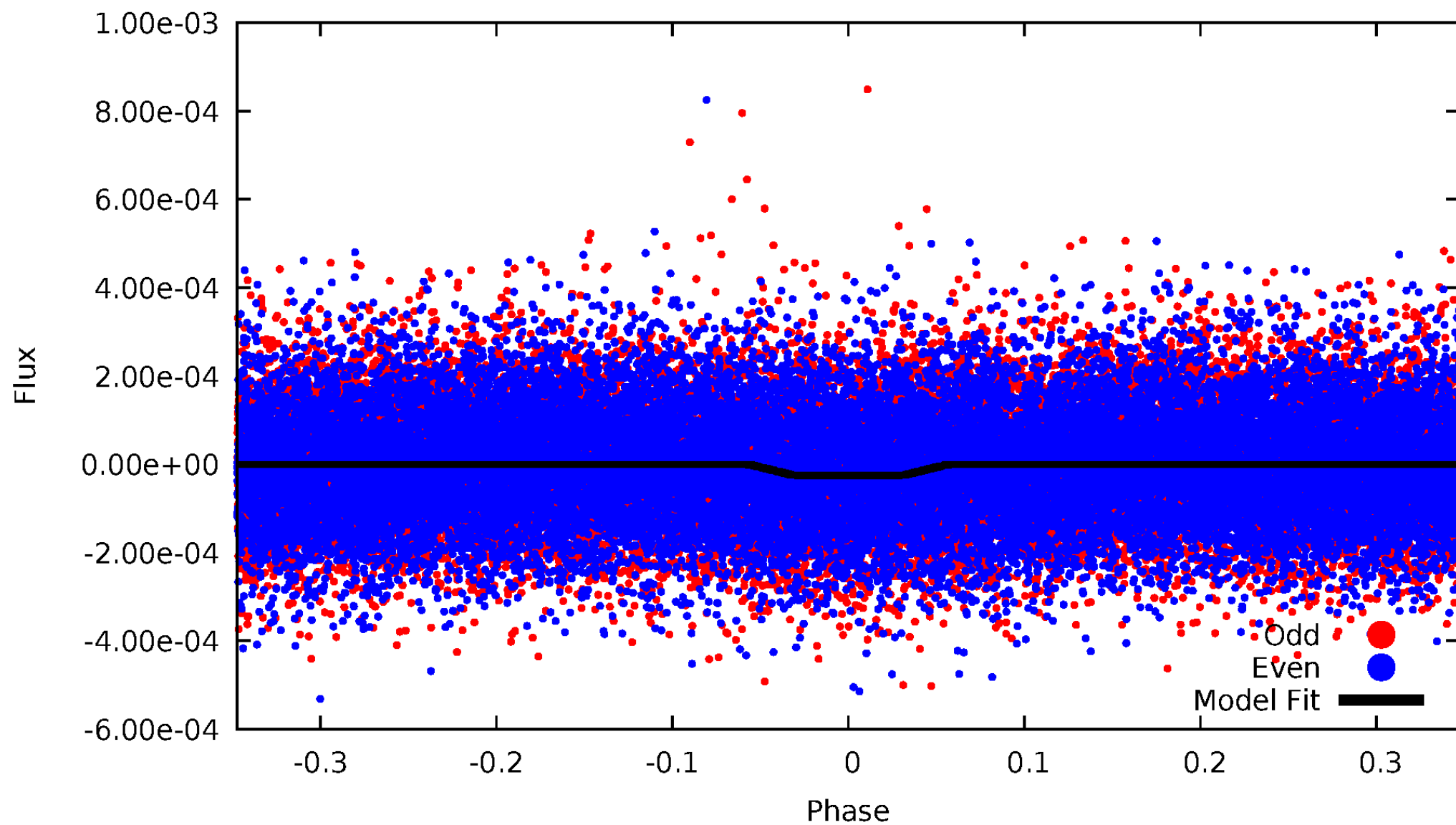
DV Odd/Even

TCE 008058241-01



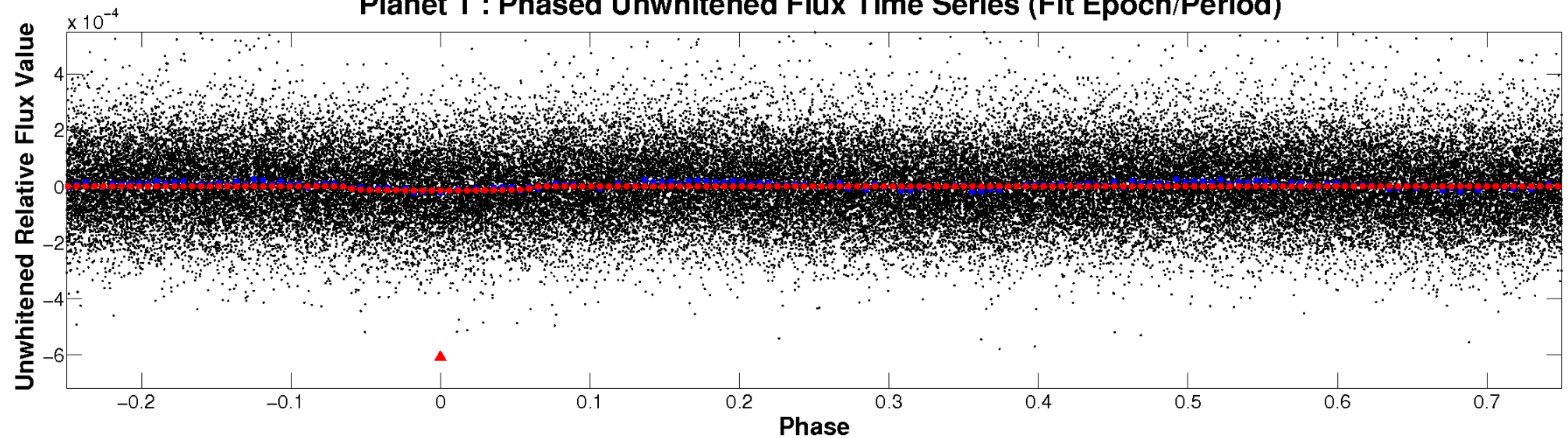
ALT Odd/Even

TCE 008058241-01

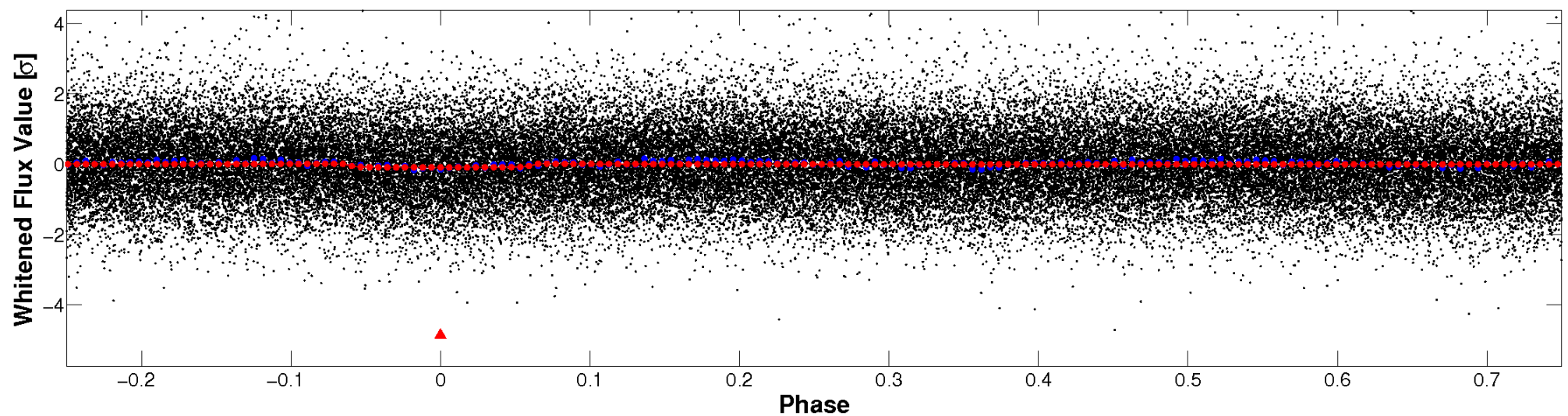


Non-Whitened Vs. Whitened Light Curve

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

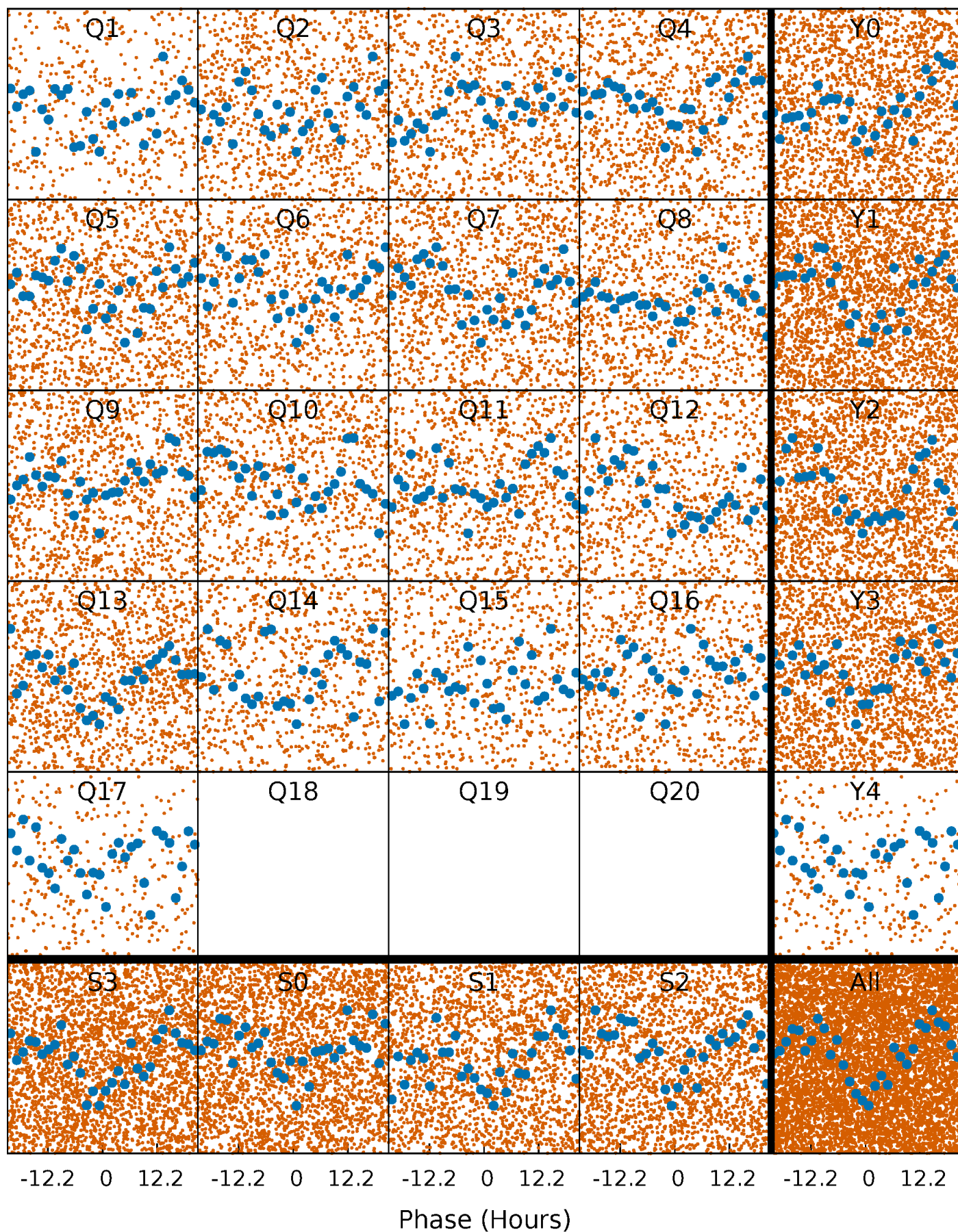


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



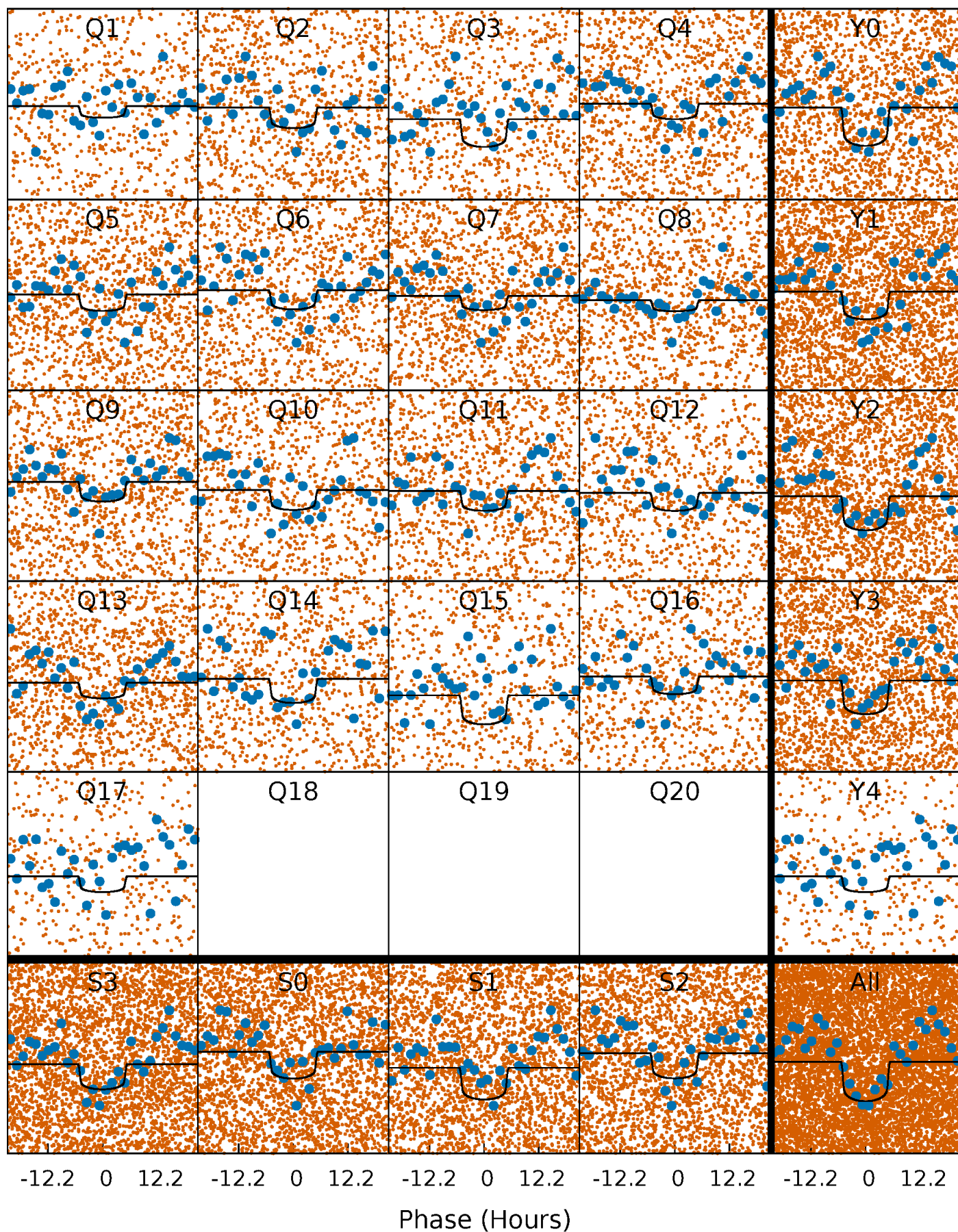
PDC Quarter-Phased Transit Curves

TCE 008058241-01 P= 3.444695 Days $T_0=134.383622$ (BKJD)



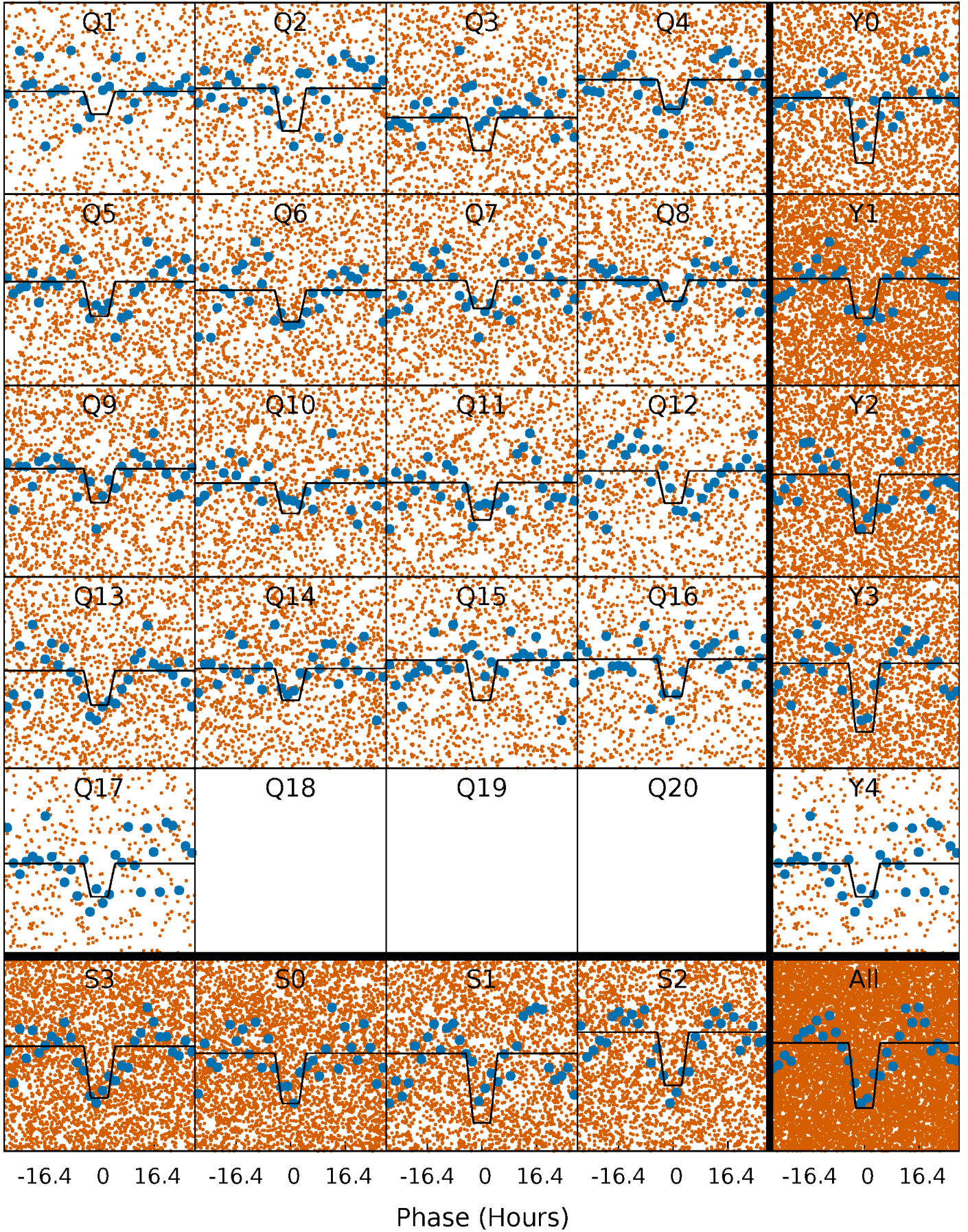
DV Quarter-Phased Transit Curves

TCE 008058241-01 P= 3.444695 Days $T_0=134.383622$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

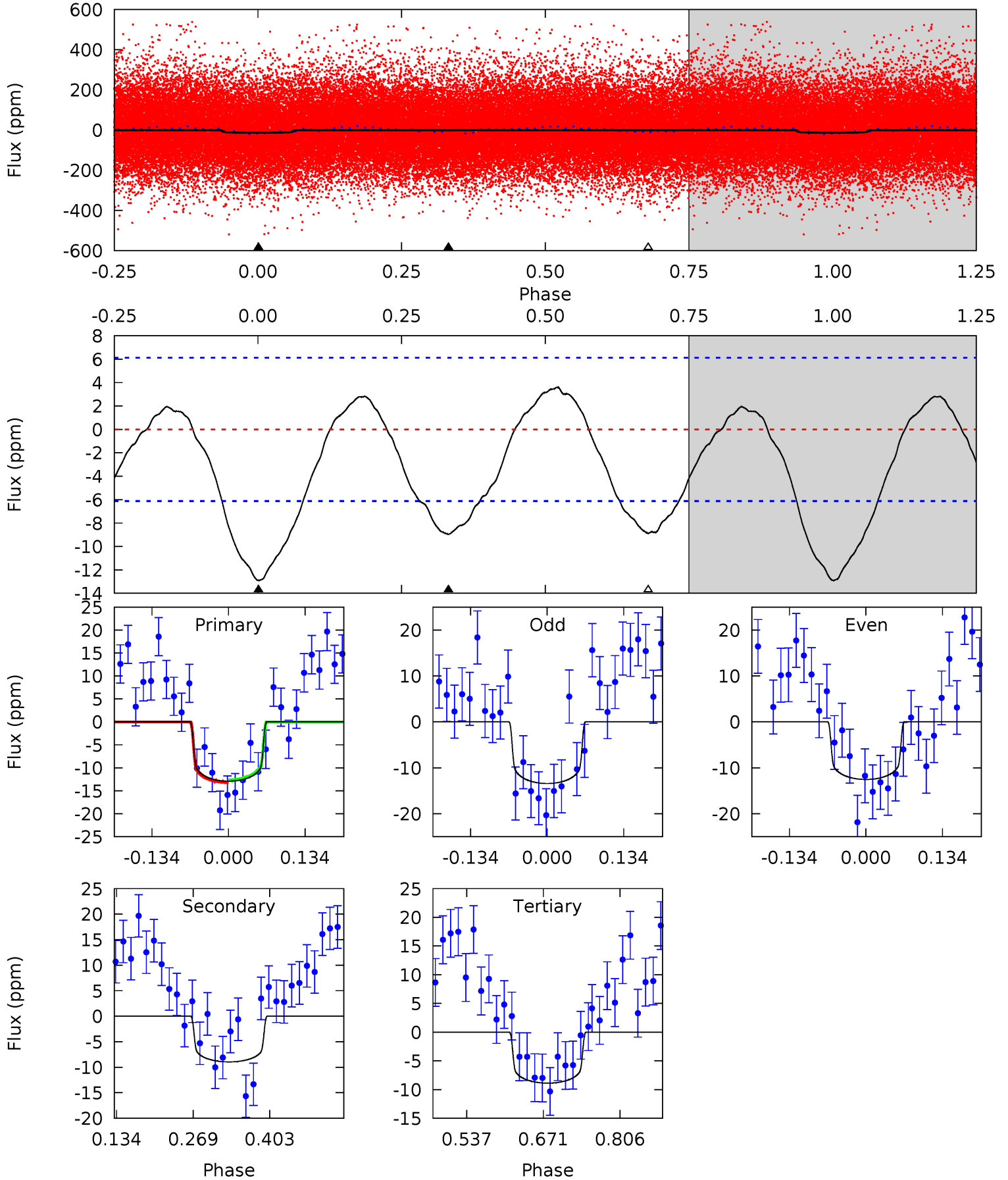
TCE 008058241-01 P= 3.444459 Days $T_0=134.431604$ (BKJD)



DV Model-Shift Uniqueness Test

008058241-01, P = 3.444695 Days, E = 130.938927 Days

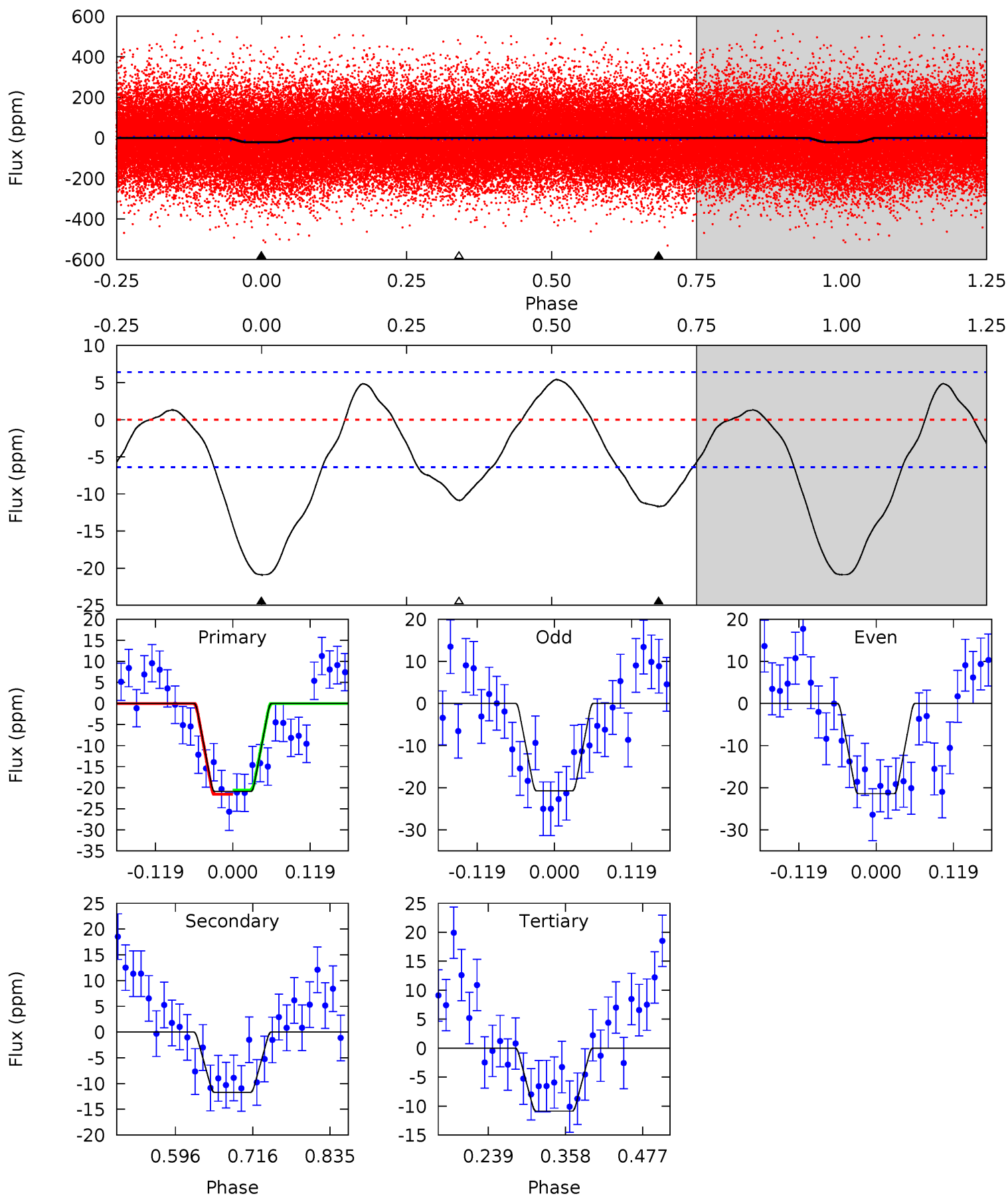
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.50	6.59	6.53	0	4.50	1.50	3.05	2.97	9.50	0.06	6.59	0.33	1.25	0.22	0.21



Alt Model-Shift Uniqueness Test

008058241-01, P = 3.444459 Days, E = 130.987145 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	8.27	7.69	0	4.53	1.56	3.47	7.09	14.8	0.58	8.27	0.24	0.98	0.21	0.37



Stellar Parameters For KIC 008058241

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7214^{+226}_{-302}	$3.911^{+0.345}_{-0.138}$	$-0.300^{+0.250}_{-0.350}$	$2.293^{+0.491}_{-0.911}$	$1.562^{+0.200}_{-0.371}$	$0.182^{+0.434}_{-0.074}$
	+3%/-4%	+9%/-4%	+83%/-117%	+21%/-40%	+13%/-24%	+238%/-40%
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 008058241-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 1	$1.02^{+0.27}_{-0.23}$	2901^{+225}_{-260}	5915^{+650}_{-545}	13^{+8}_{-5}
Alt.	-12 ± 1	$1.20^{+0.30}_{-0.31}$	2915^{+217}_{-332}	5851^{+594}_{-479}	12^{+9}_{-4}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

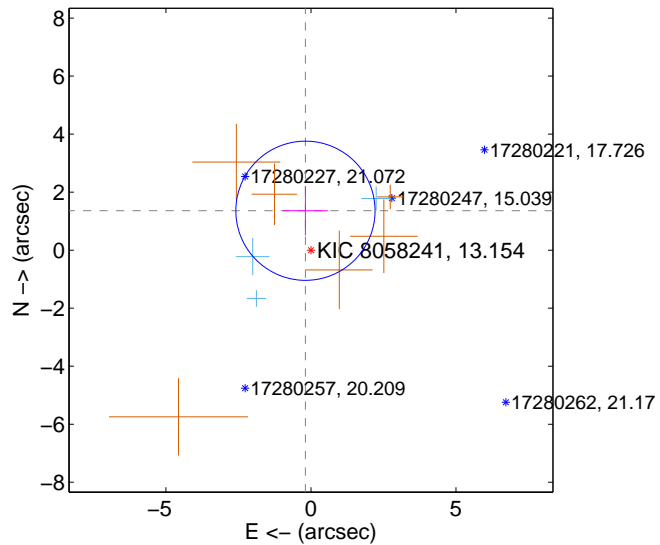
Supplemental centroid analysis for 008058241-01. Kepler magnitude: 13.15. Transit SNR 7.35

There are 3 quarters with good PRF difference image offsets

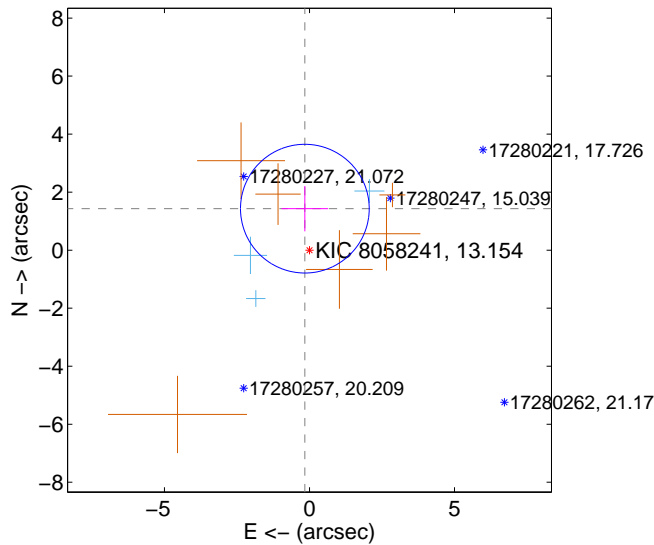
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.372 ± 0.800	1.72	0.190 ± 0.773	1.359 ± 0.855
PRF-fit source offset from KIC position	1.439 ± 0.739	1.95	0.159 ± 0.801	1.431 ± 0.783
photometric centroid source offset	0.99 ± 1.99	0.50	-0.78 ± 2.10	-0.61 ± 1.78

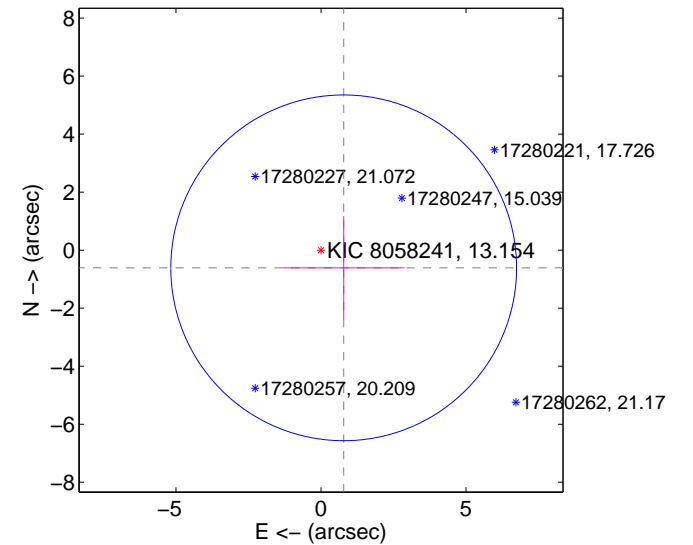
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

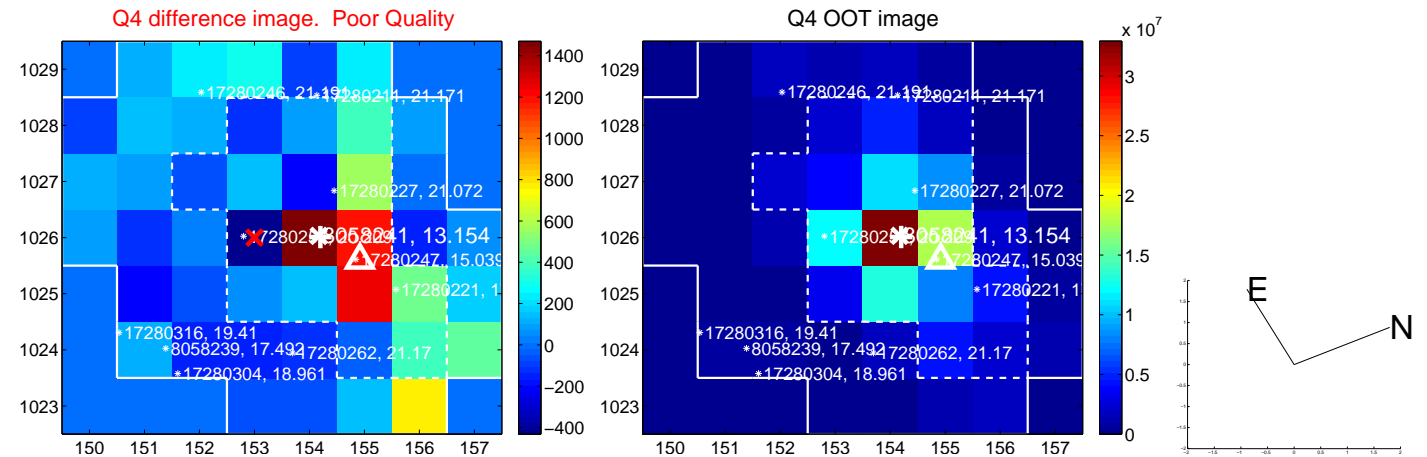
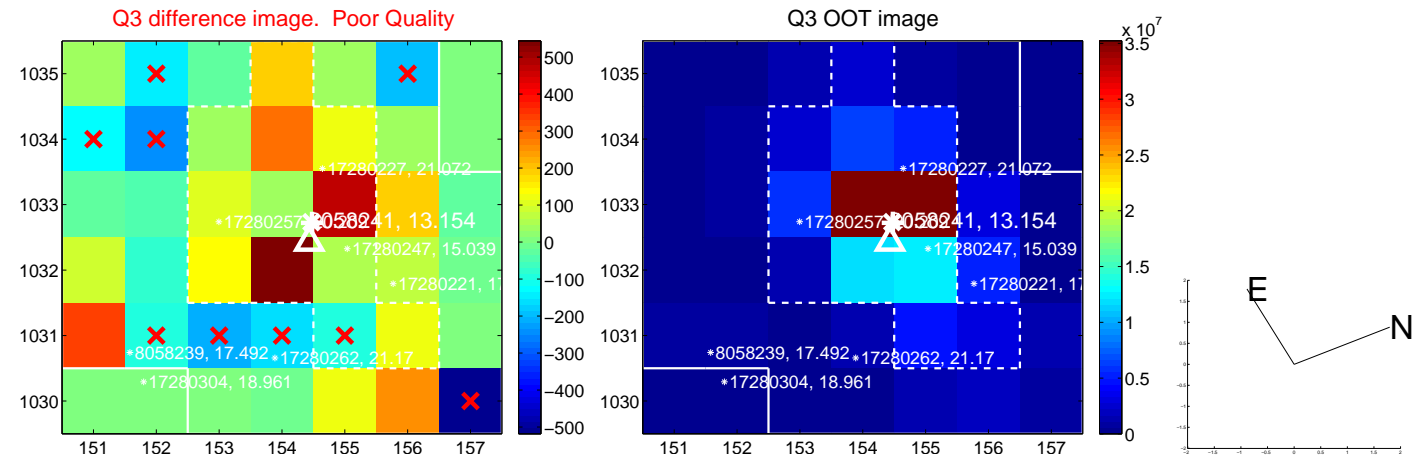
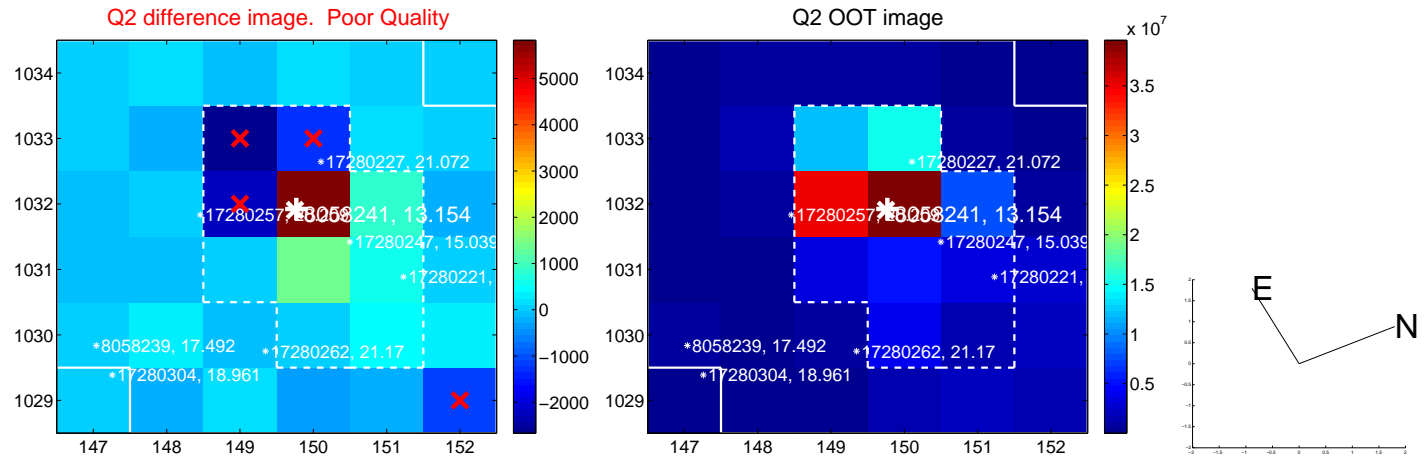
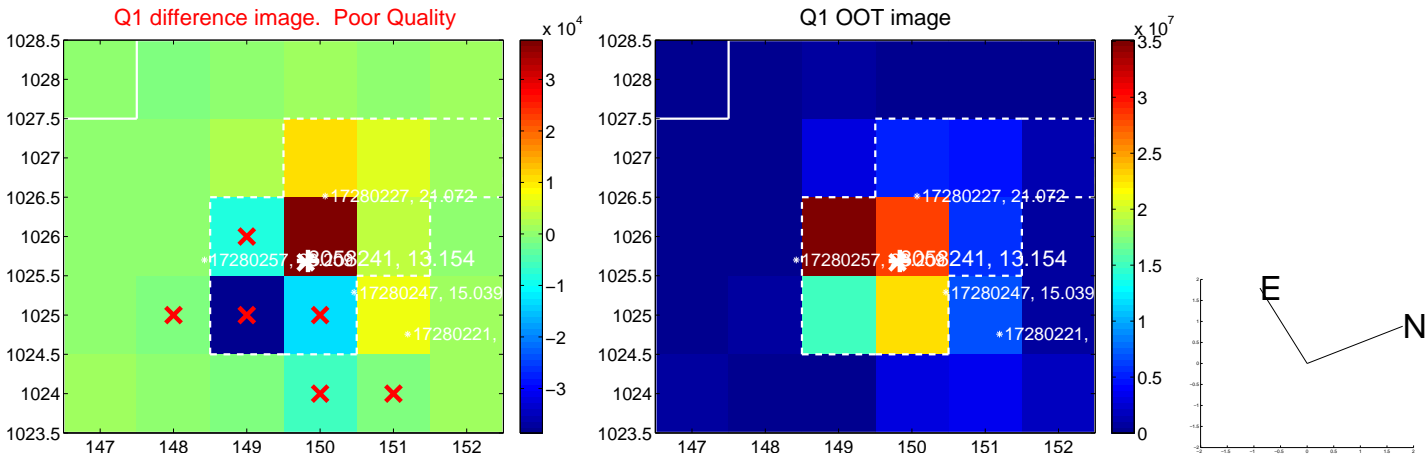


offset from photometric centroids

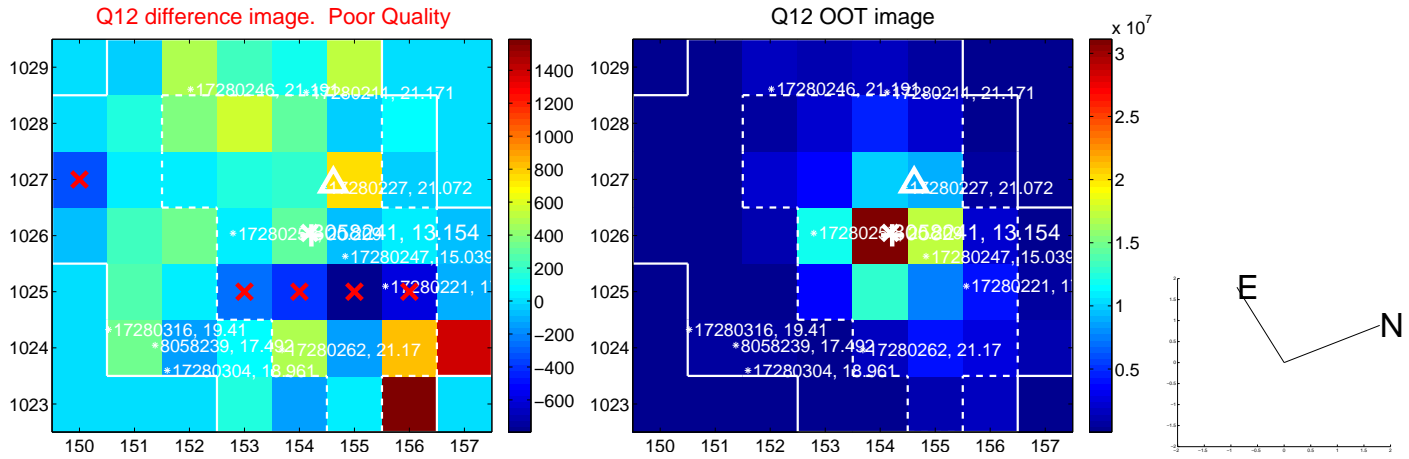
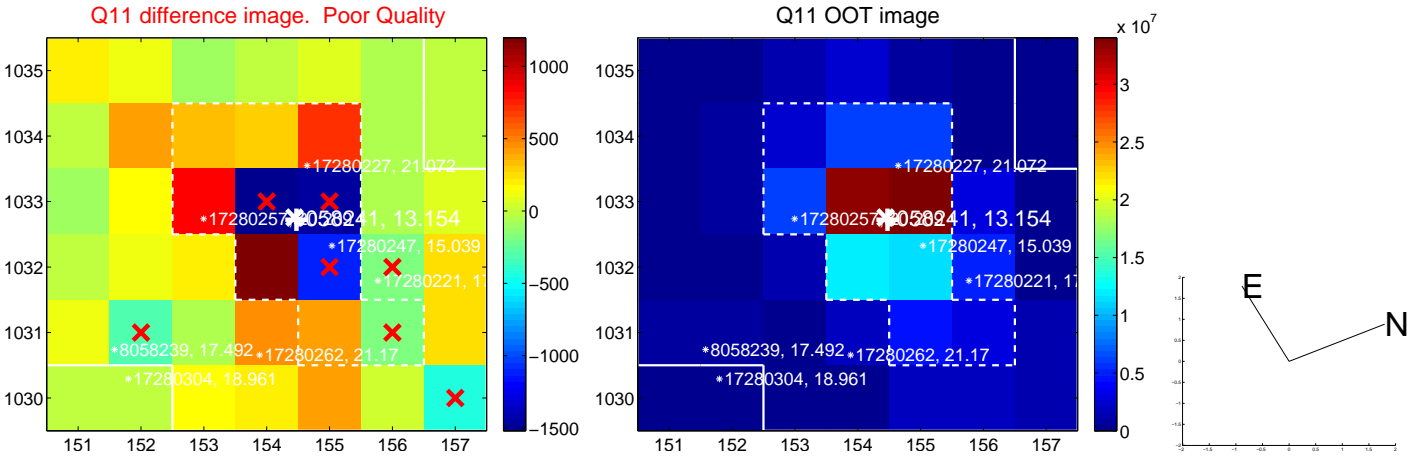
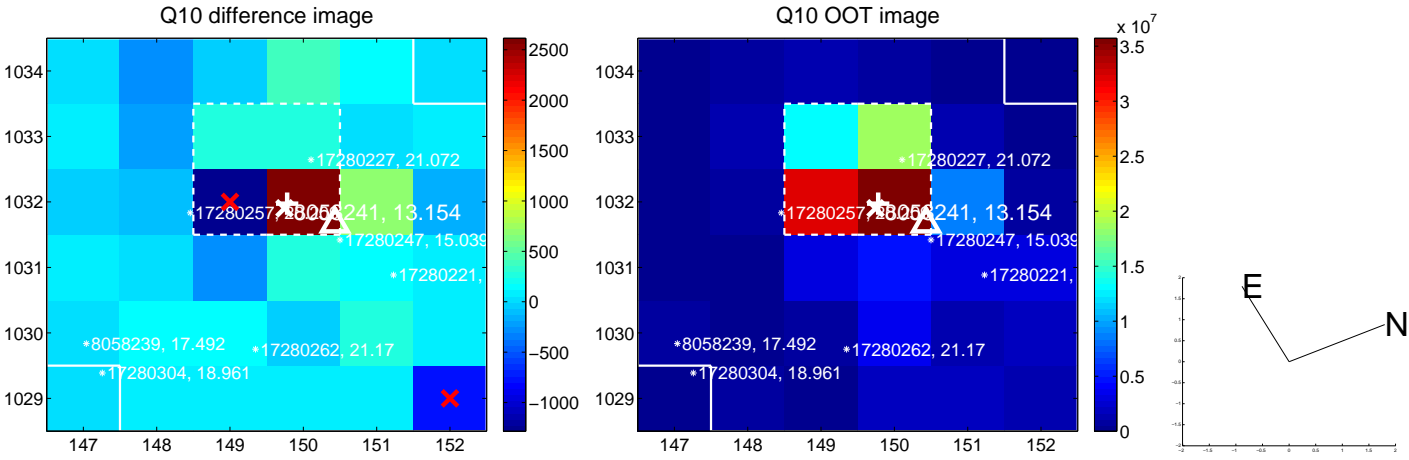
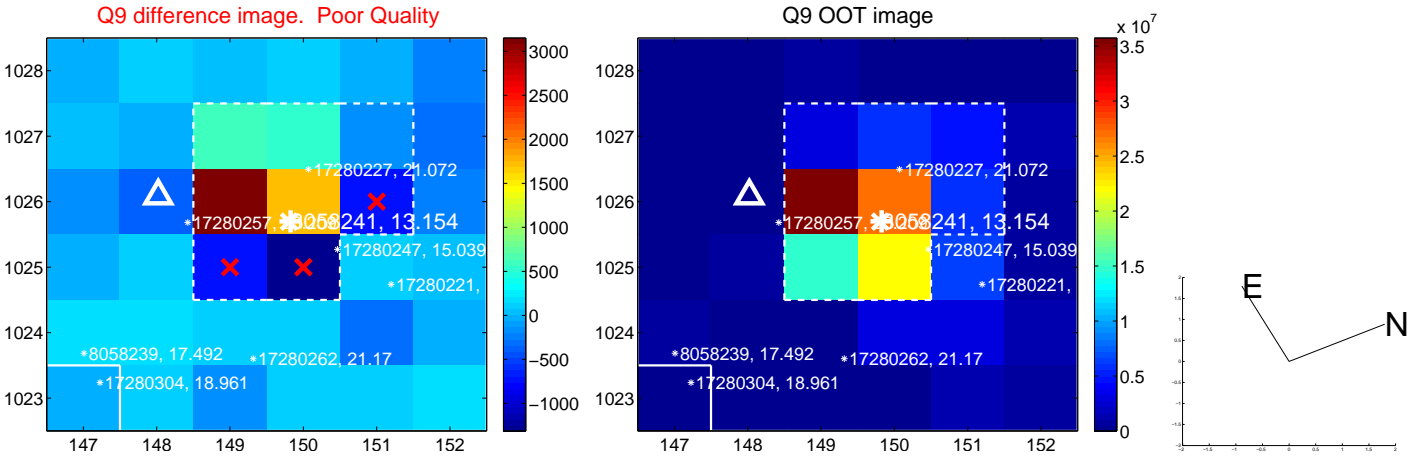


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

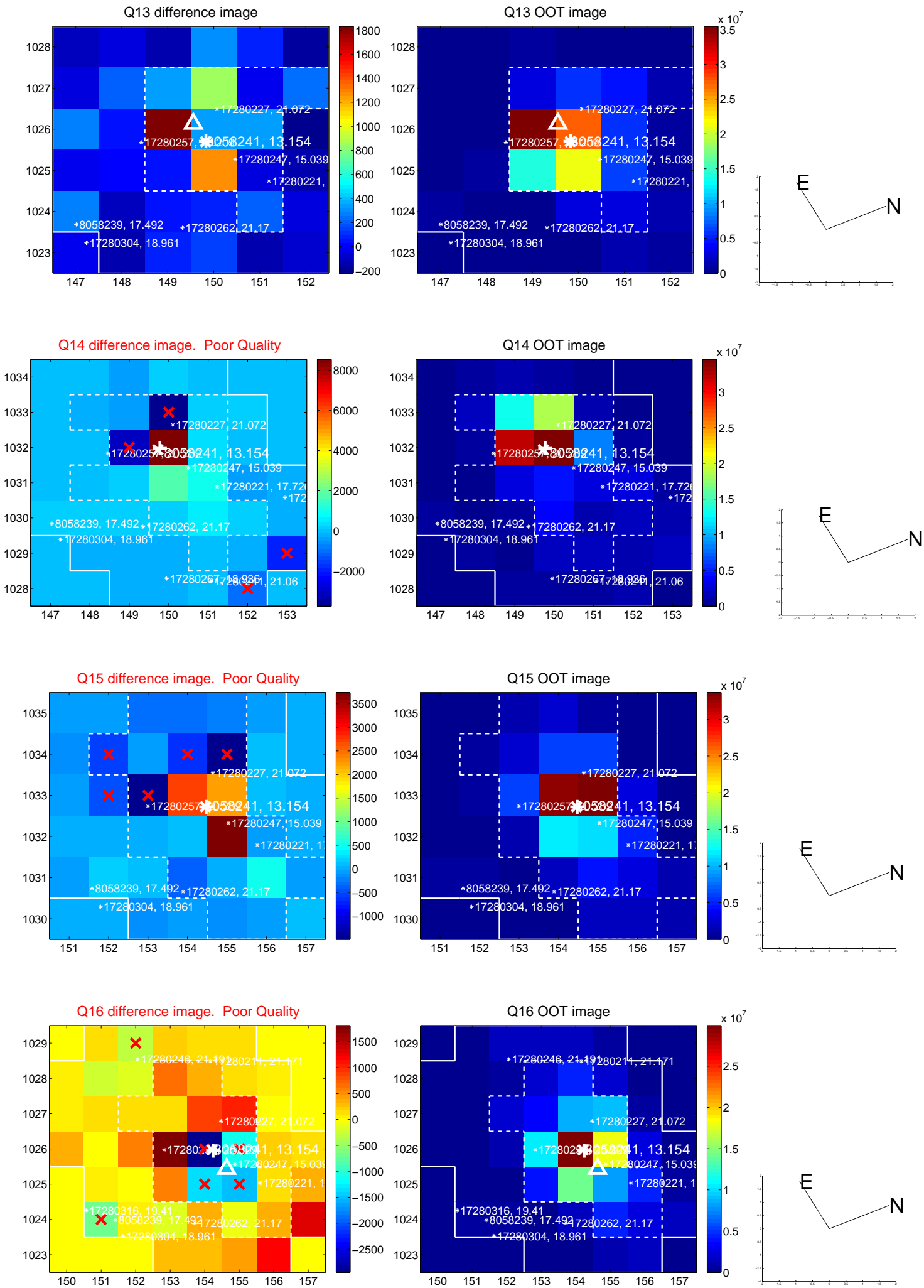
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



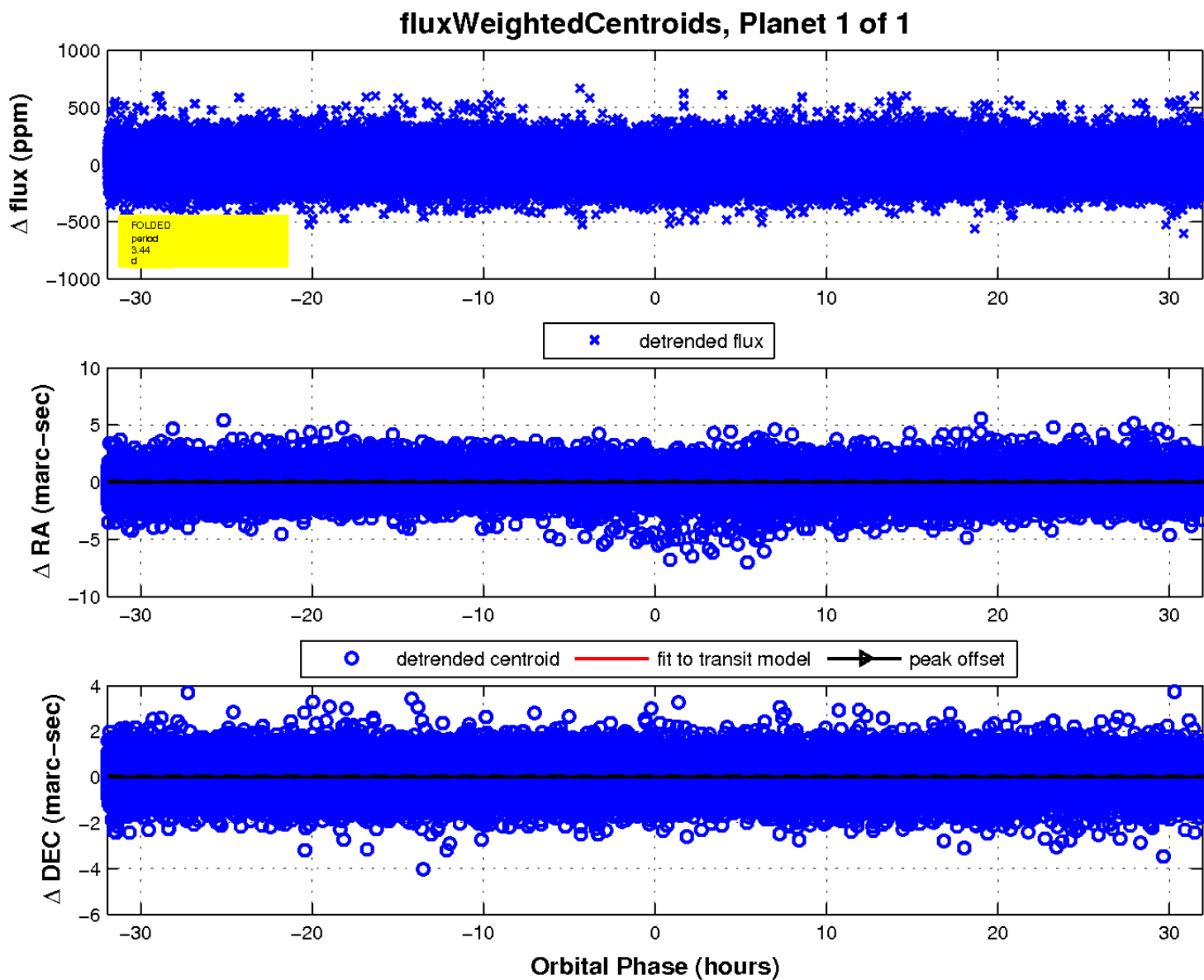
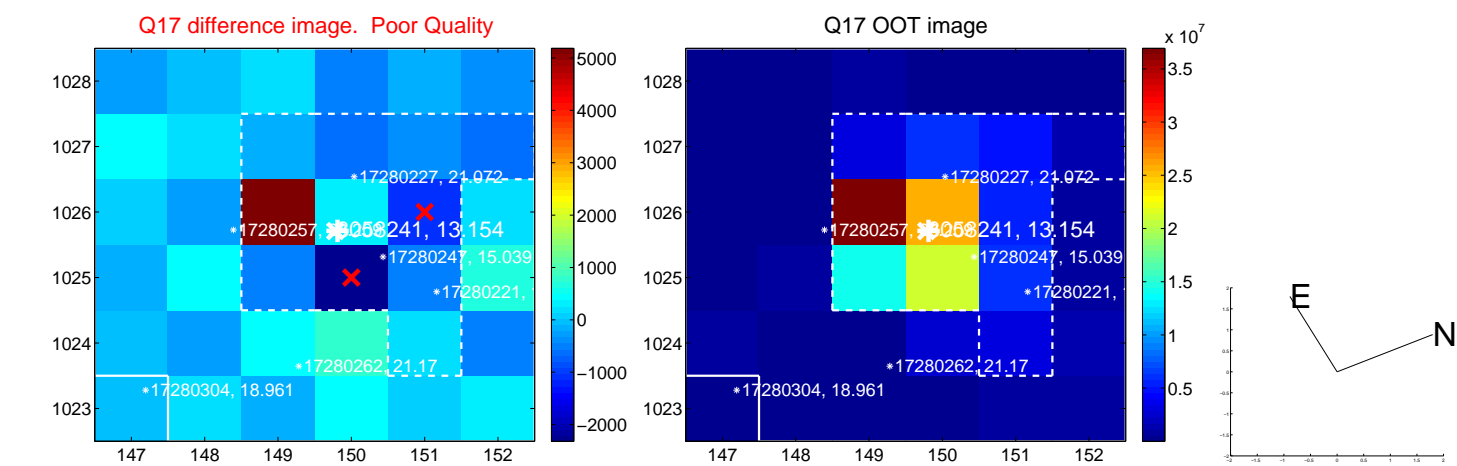
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

