

KIC 003542566

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})
003542566-01	OBS	No	1.582296	132.584507	18.1	10.842	12.7	12.2	3.04	8357	1.32	36011.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003542566-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

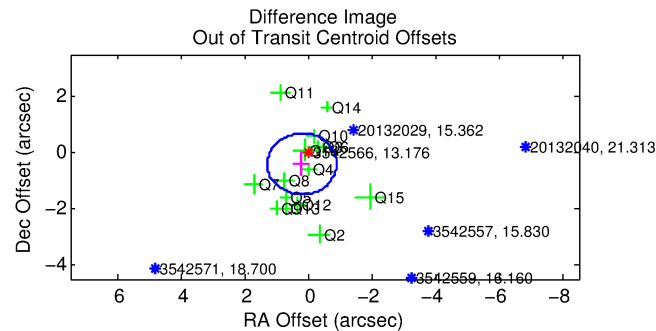
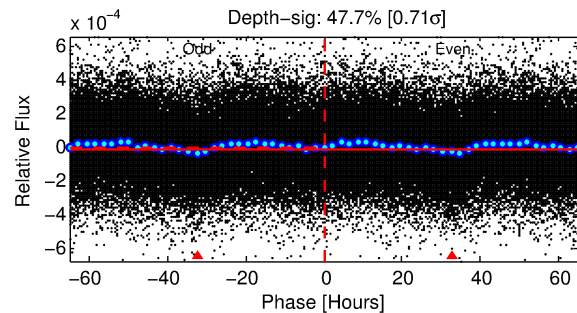
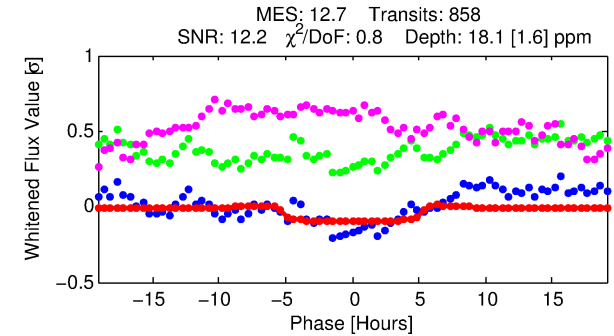
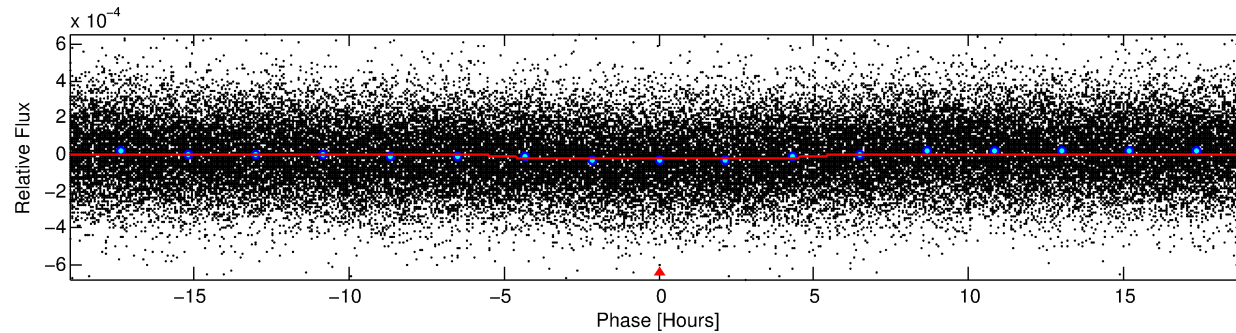
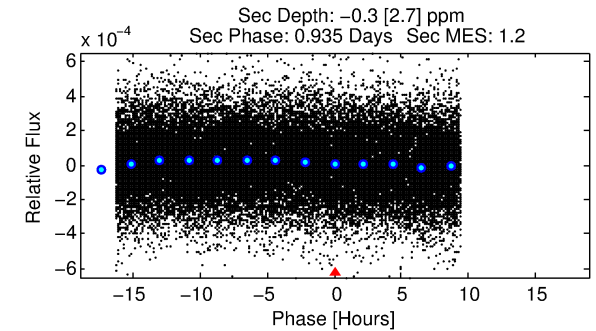
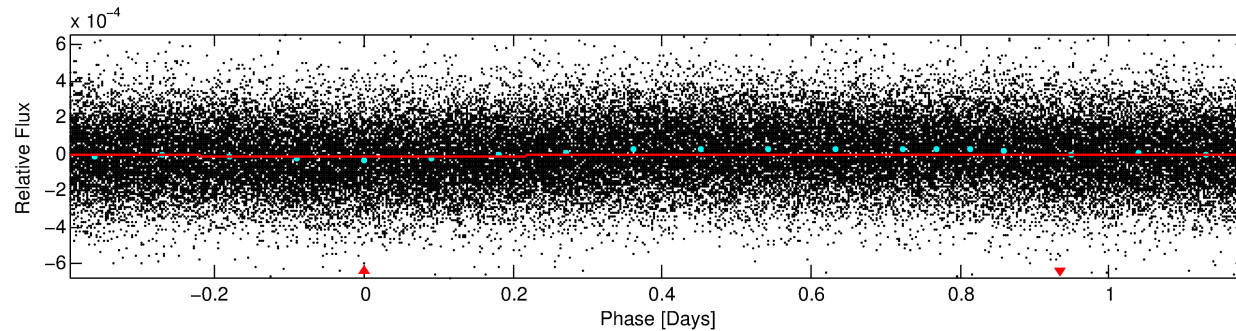
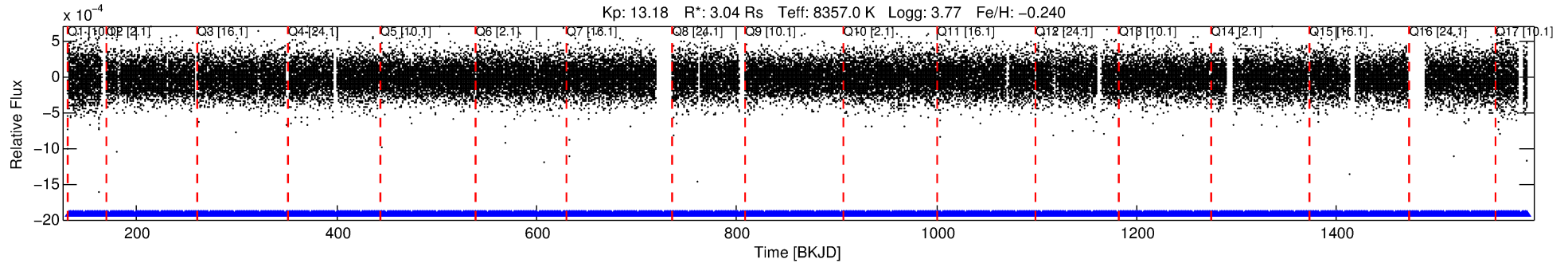
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003542566-01

No Significant Match Found

DV One-Page Summary

KIC: 3542566 Candidate: 1 of 1 Period: 1.582 d



DV Fit Results:

Period = 1.58230 [0.00002] d
Epoch = 132.5845 [0.0080] BKJD
Rp/R* = 0.0040 [0.0030]
a/R* = 1.25 [1.97]
b = 0.37 [10.24]
Seff = 36011.19 [25593.92]
Teq = 3513 [624] K
Rp = 1.32 [1.15] Re
a = 0.0335 [0.0143] AU
Ag = N/A
Teffp = N/A

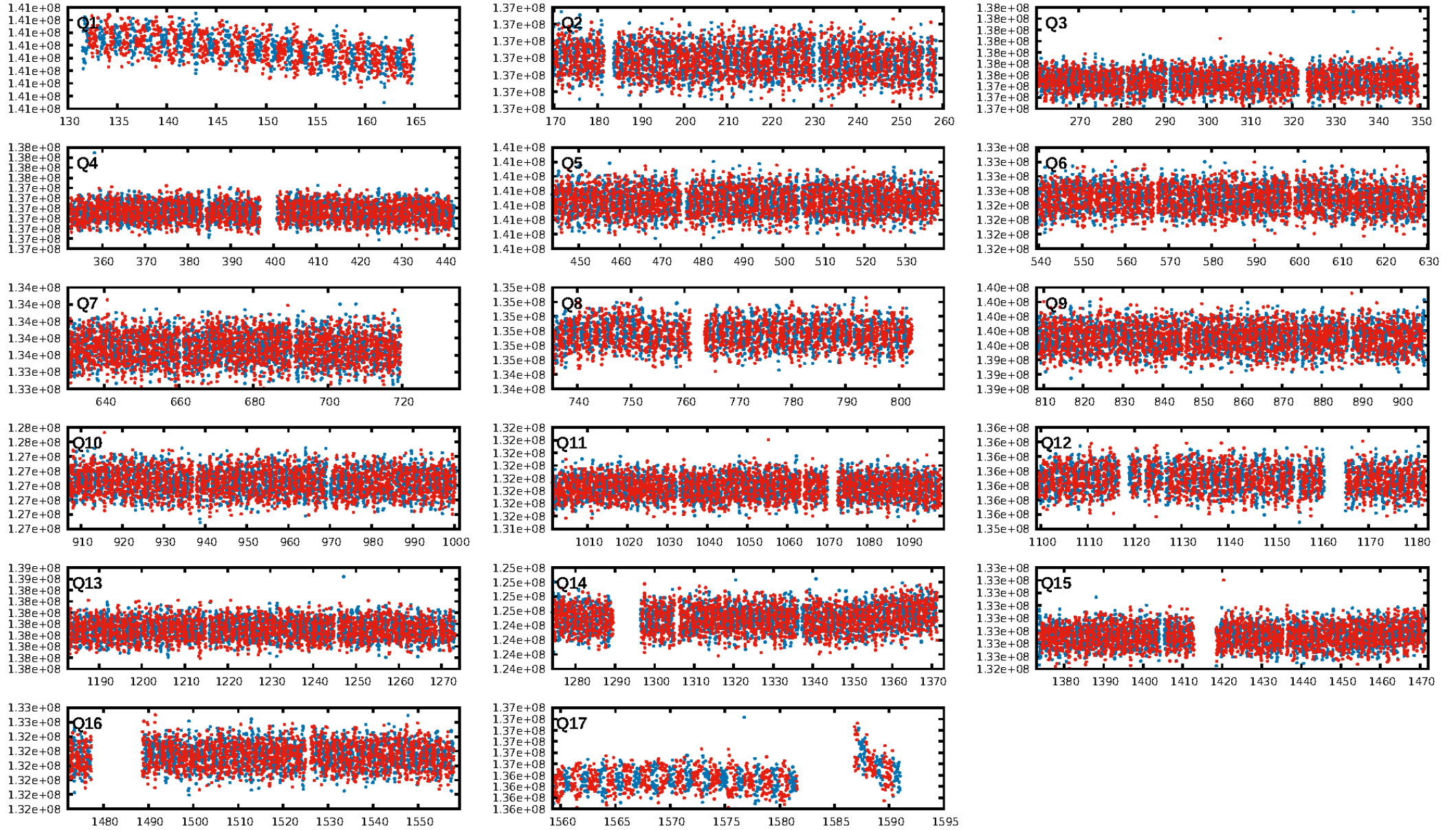
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.31e-39
RollingBand-fgt: 1.00 [820/820]
GhostDiagnostic-chr: 2.53
Centroid-sig: 10.6%
Centroid-so: 0.984 arcsec [1.13σ]
OotOffset-rm: 0.458 arcsec [1.26σ]
KicOffset-rm: 0.541 arcsec [1.50σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 1.00 [17/17]

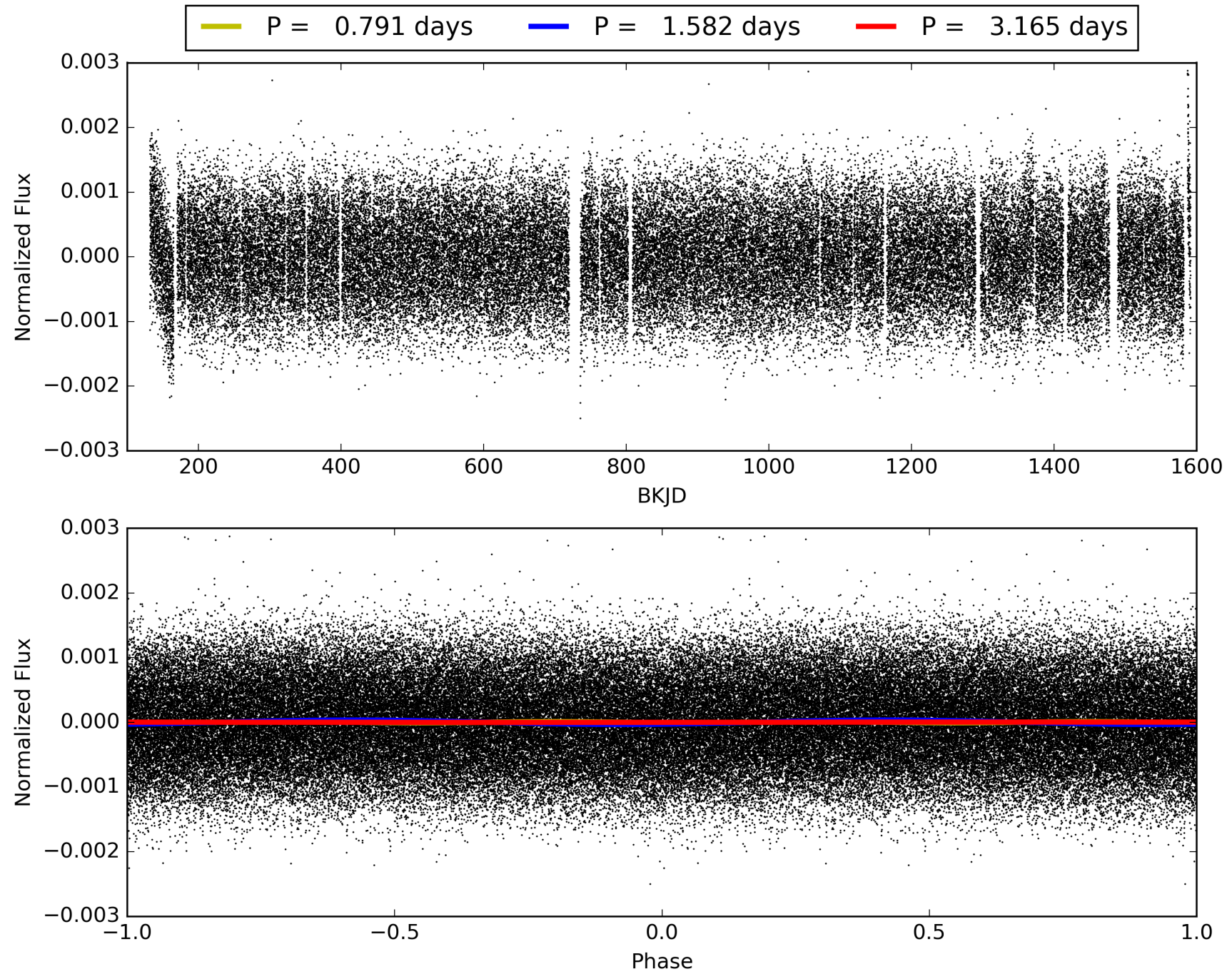
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:25:43 Z

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

TCE 003542566-01, PDC Light Curves

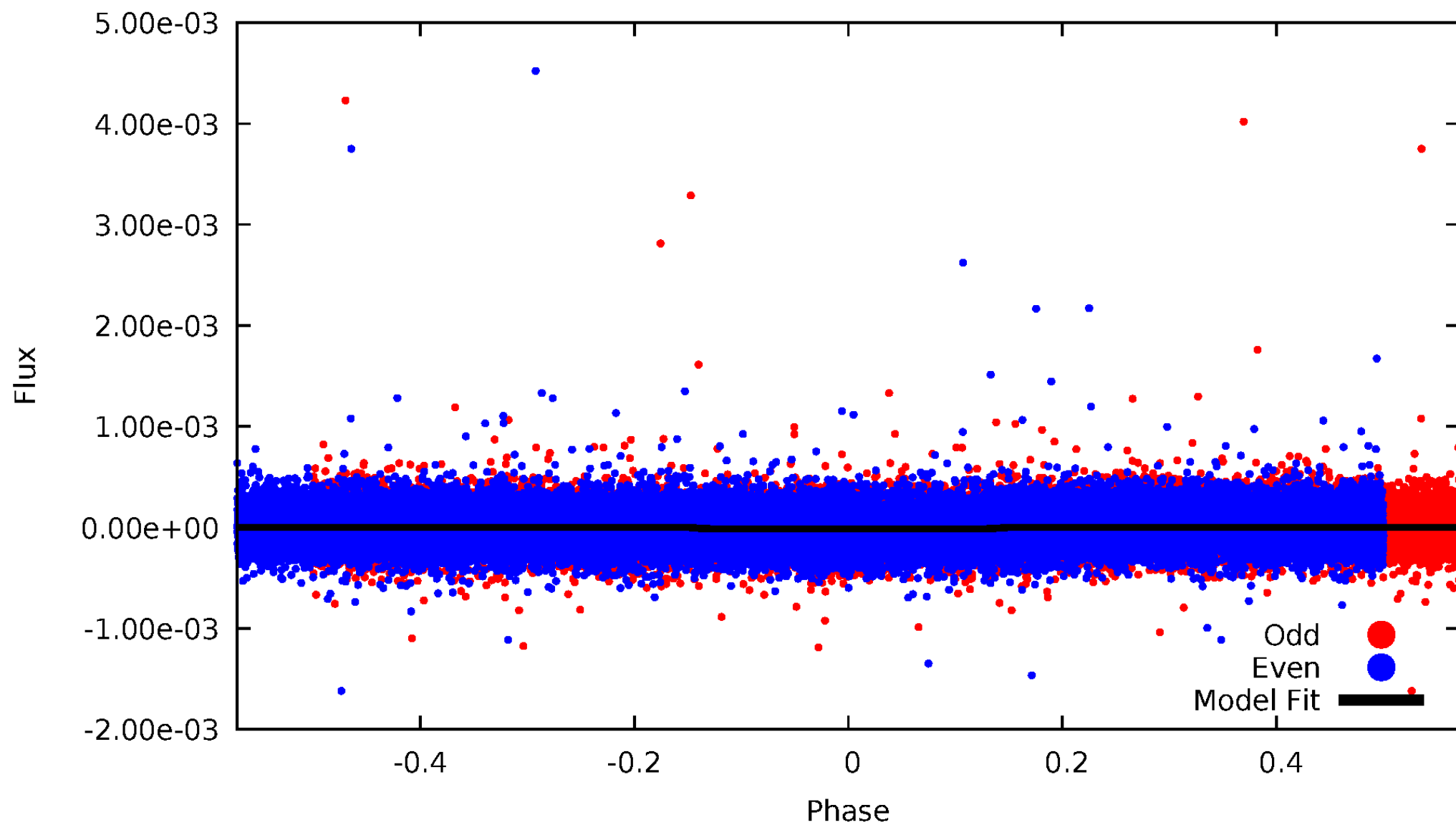


TCE 003542566-01



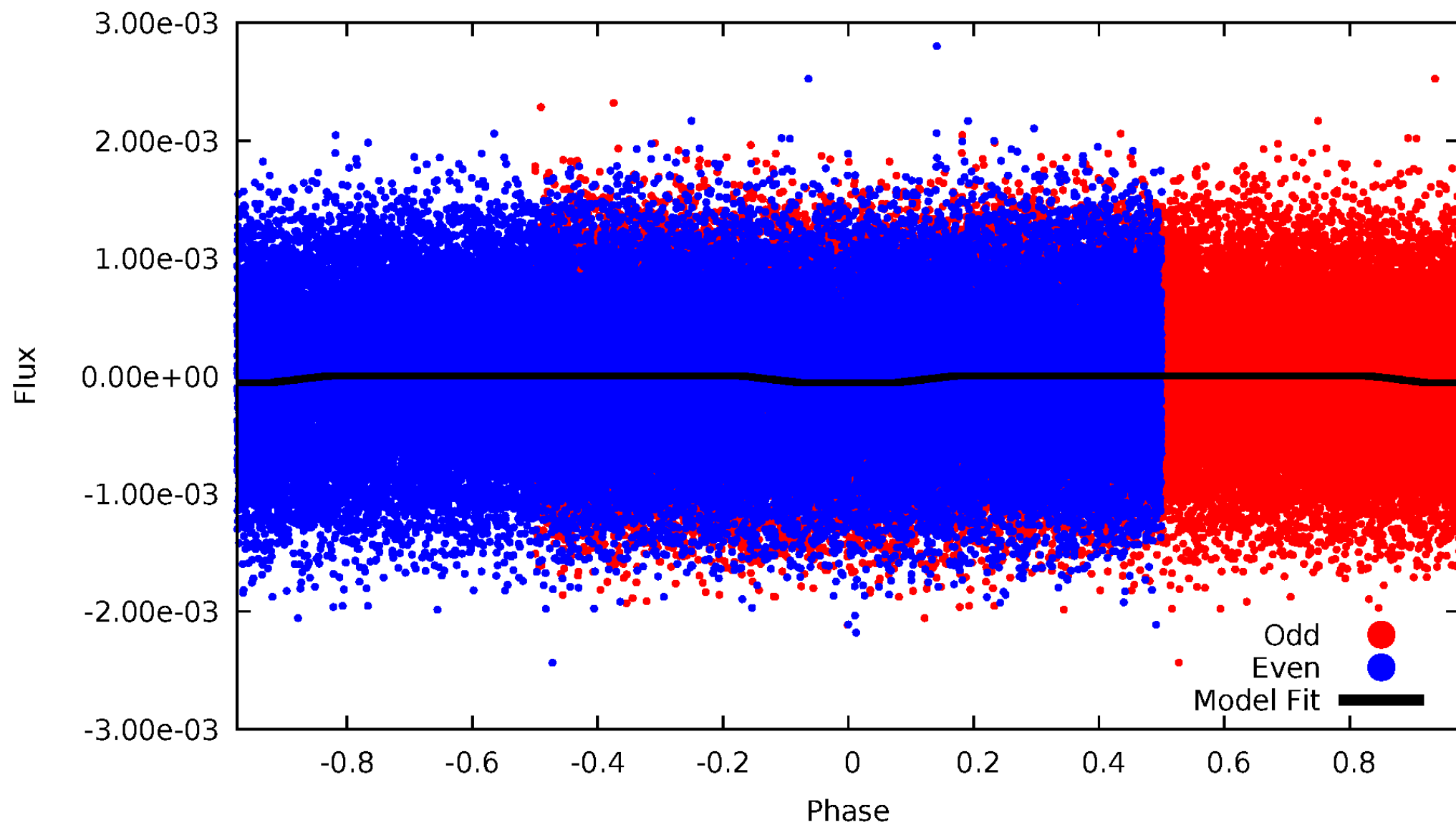
DV Odd/Even

TCE 003542566-01



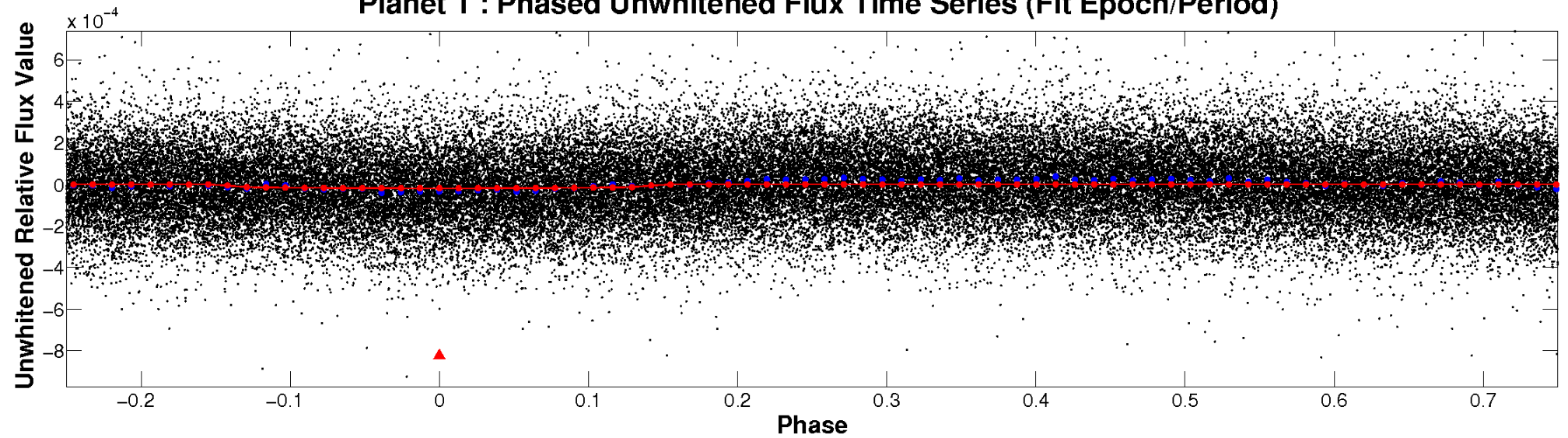
ALT Odd/Even

TCE 003542566-01

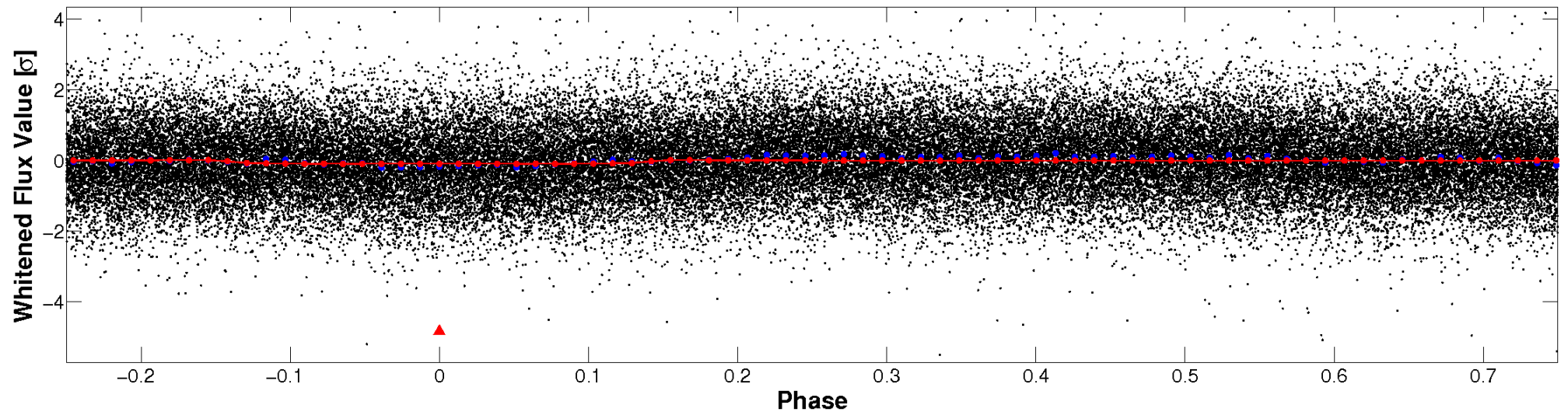


Non-Whitened Vs. Whitened Light Curve

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

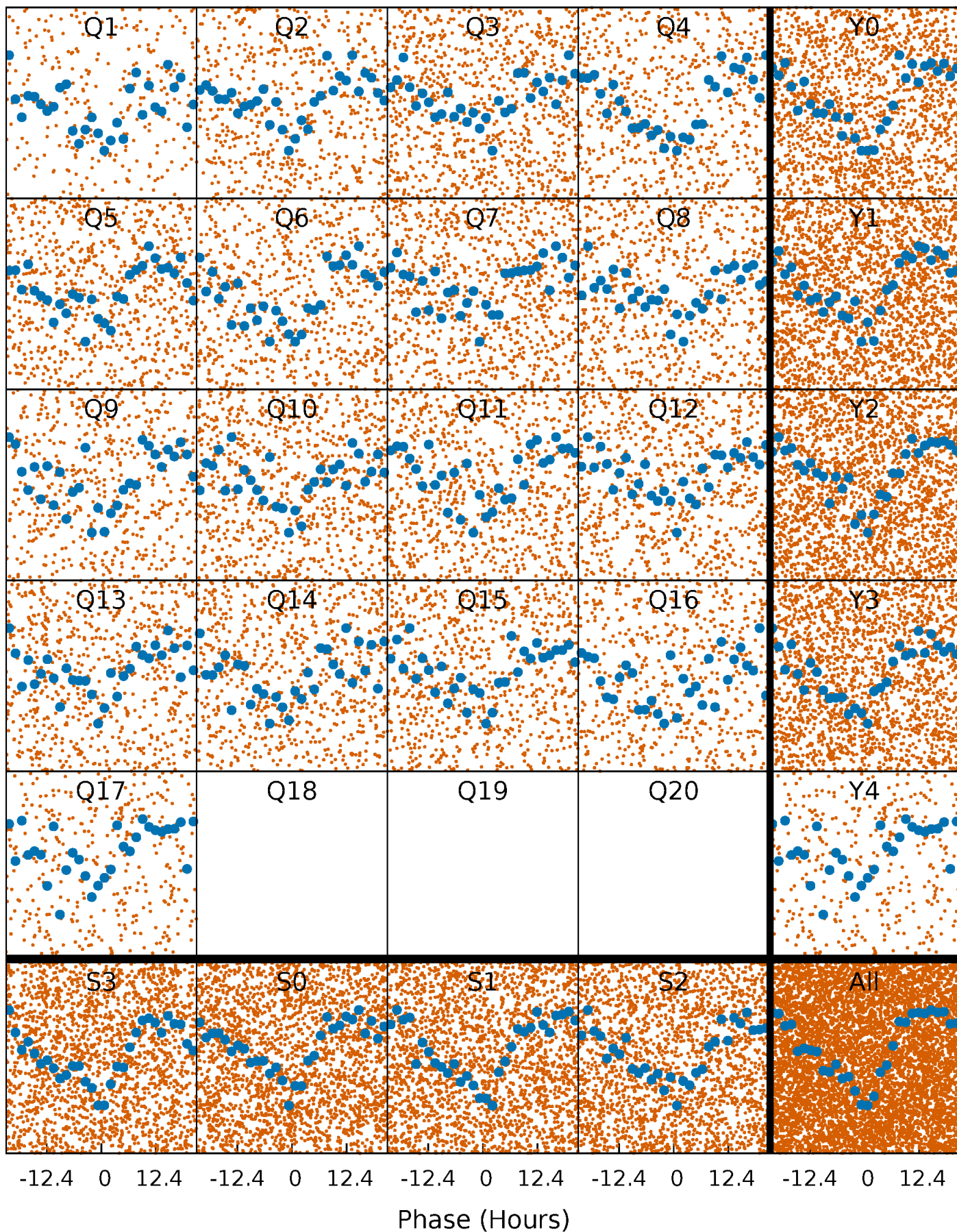


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



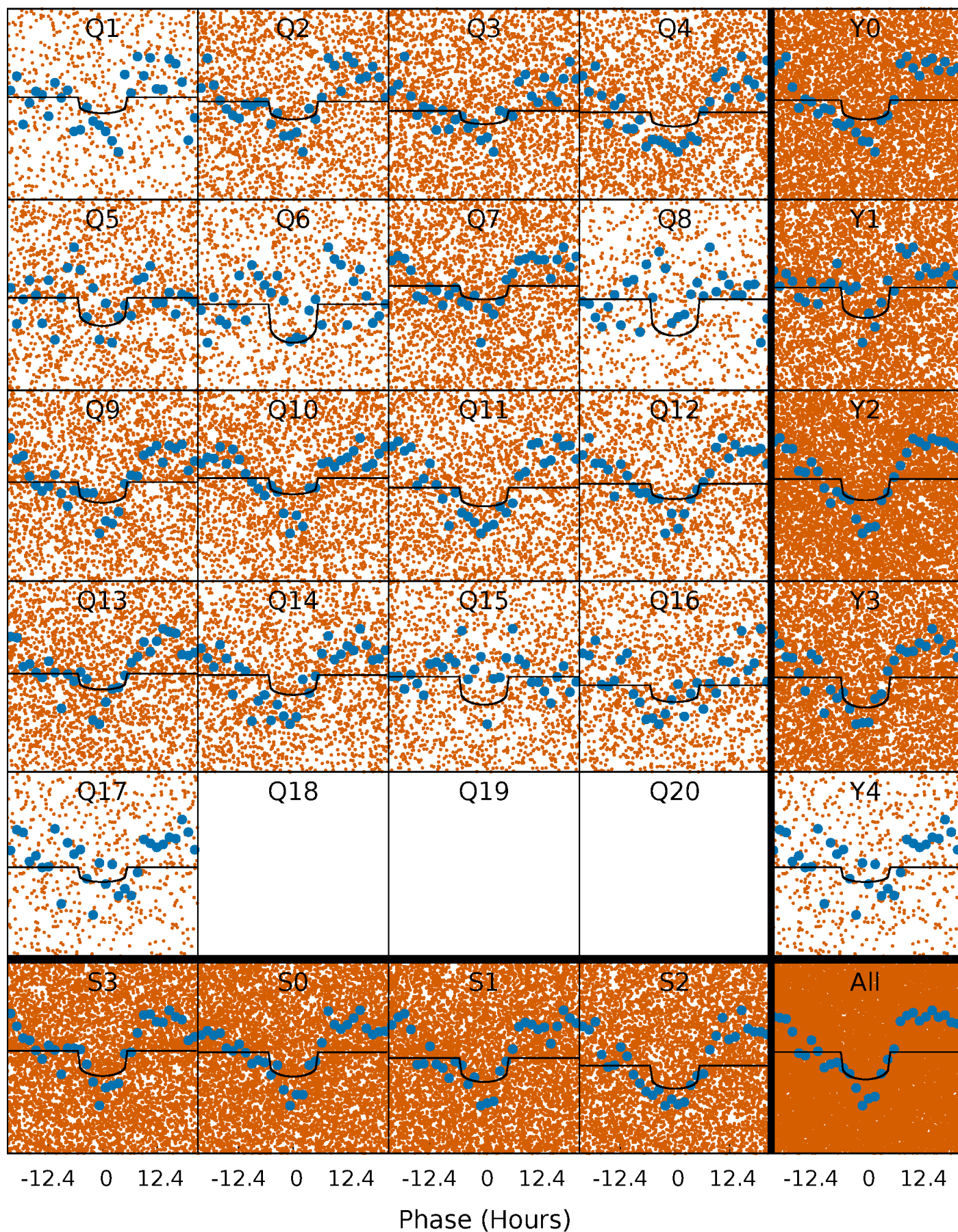
PDC Quarter-Phased Transit Curves

TCE 003542566-01 P= 1.582296 Days $T_0=132.584507$ (BKJD)



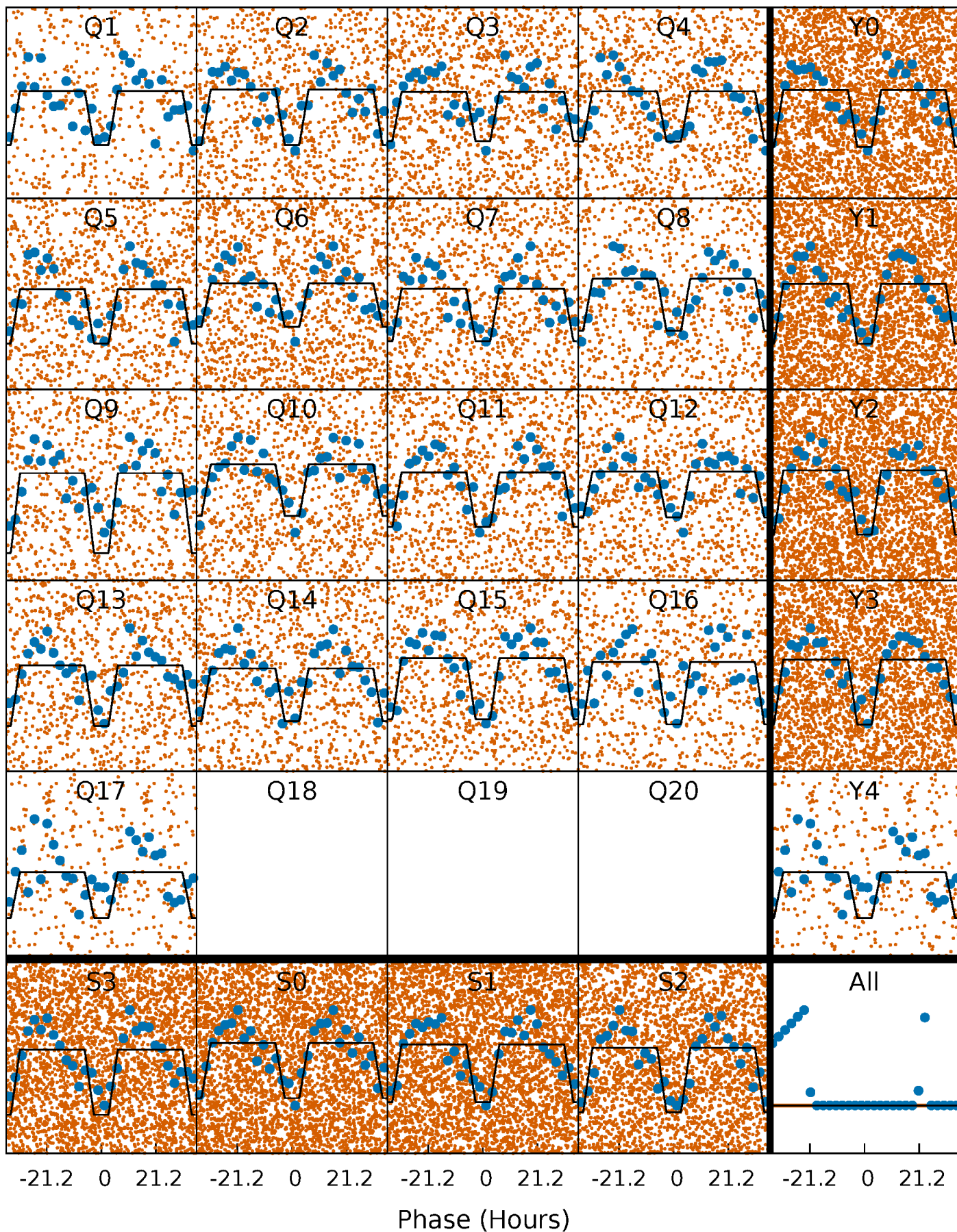
DV Quarter-Phased Transit Curves

TCE 003542566-01 P= 1.582296 Days $T_0=132.584507$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

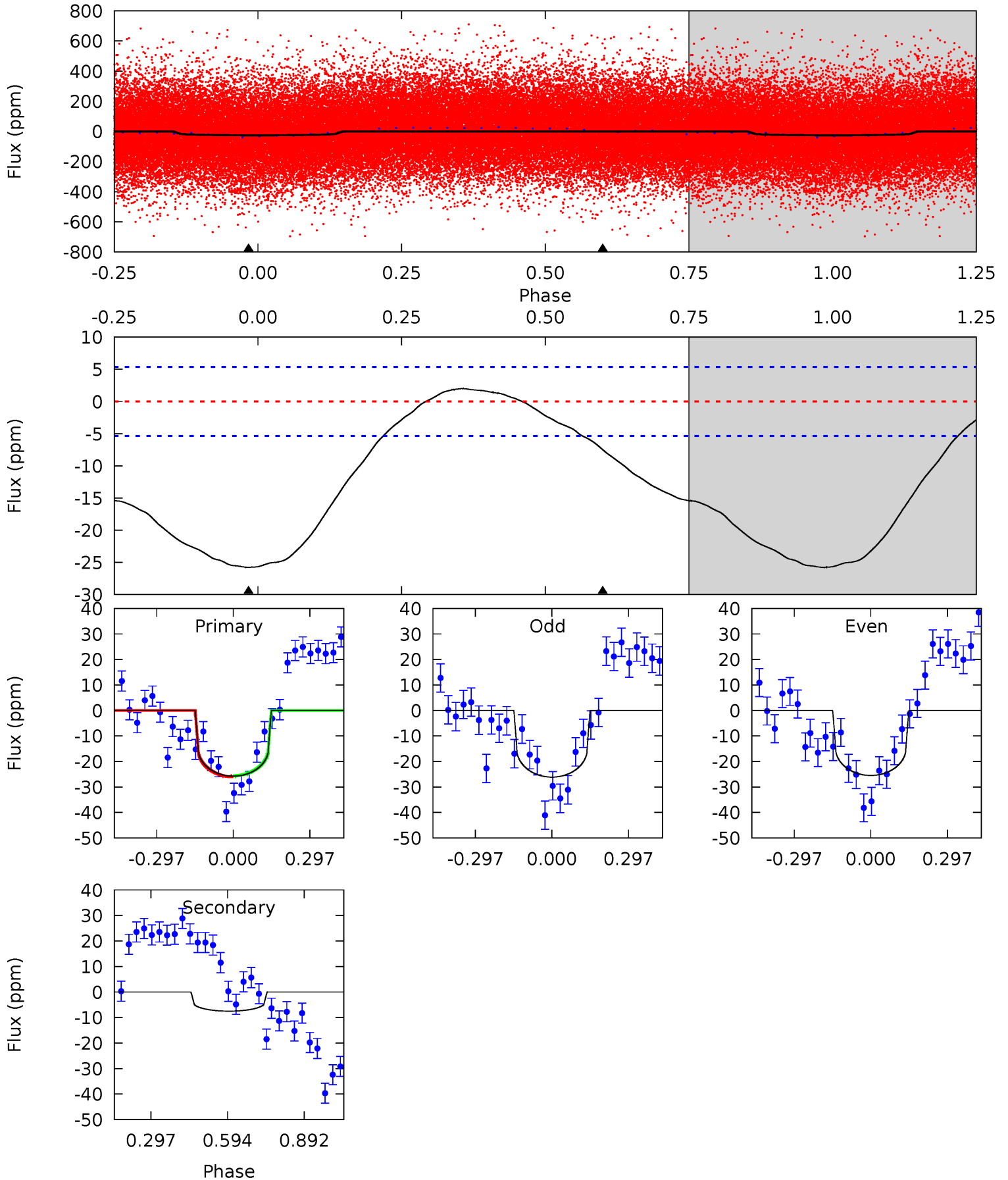
TCE 003542566-01 P= 1.582204 Days $T_0=132.584086$ (BKJD)



DV Model-Shift Uniqueness Test

003542566-01, P = 1.582296 Days, E = 131.002211 Days

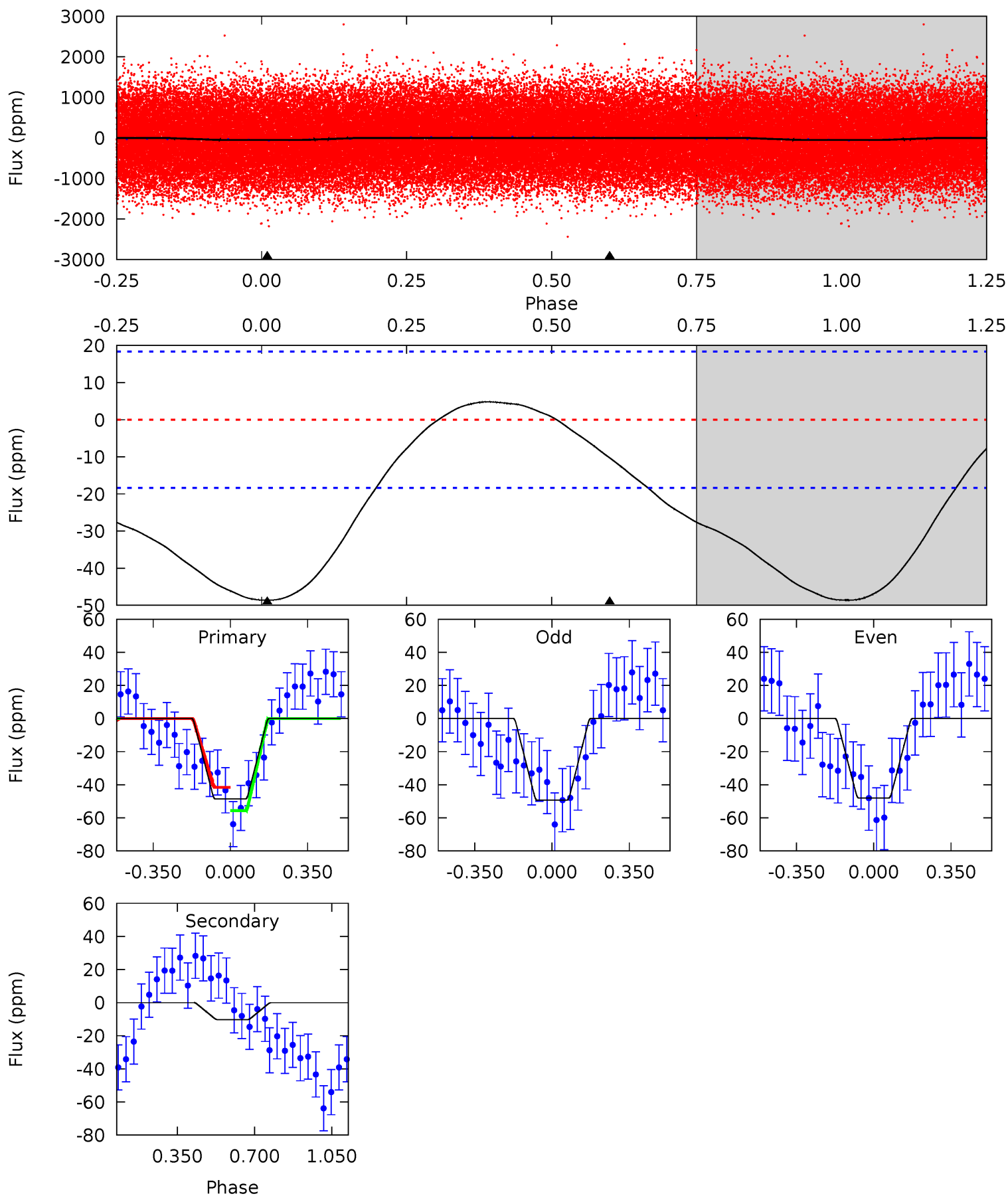
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	6.06	0	0	4.33	1.04	1.32	20.8	20.8	6.06	6.06	0.26	0.95	0.07	0.19



Alt Model-Shift Uniqueness Test

003542566-01, P = 1.582204 Days, E = 131.001882 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	2.40	0	0	4.29	0.93	0.76	11.4	11.4	2.40	2.40	0.14	0.88	0.09	1.63



Stellar Parameters For KIC 003542566

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8357^{+206}_{-354}	$3.773^{+0.408}_{-0.076}$	$-0.240^{+0.250}_{-0.350}$	$3.038^{+0.472}_{-1.322}$	$1.994^{+0.317}_{-0.515}$	$0.100^{+0.402}_{-0.031}$
	+2%/-4%	+11%/-2%	+104%/-146%	+16%/-44%	+16%/-26%	+401%/-31%
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 003542566-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 1	$1.26^{+0.98}_{-0.75}$	4729^{+322}_{-521}	6215^{+5379}_{-1567}	$2.852^{+14.752}_{-1.901}$
Alt.	-10 ± 4	$2.24^{+1.13}_{-0.97}$	4743^{+302}_{-552}	4898^{+1777}_{-1184}	$1.193^{+2.511}_{-0.710}$

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 $A_{\text{obs}} \gg 1.0$

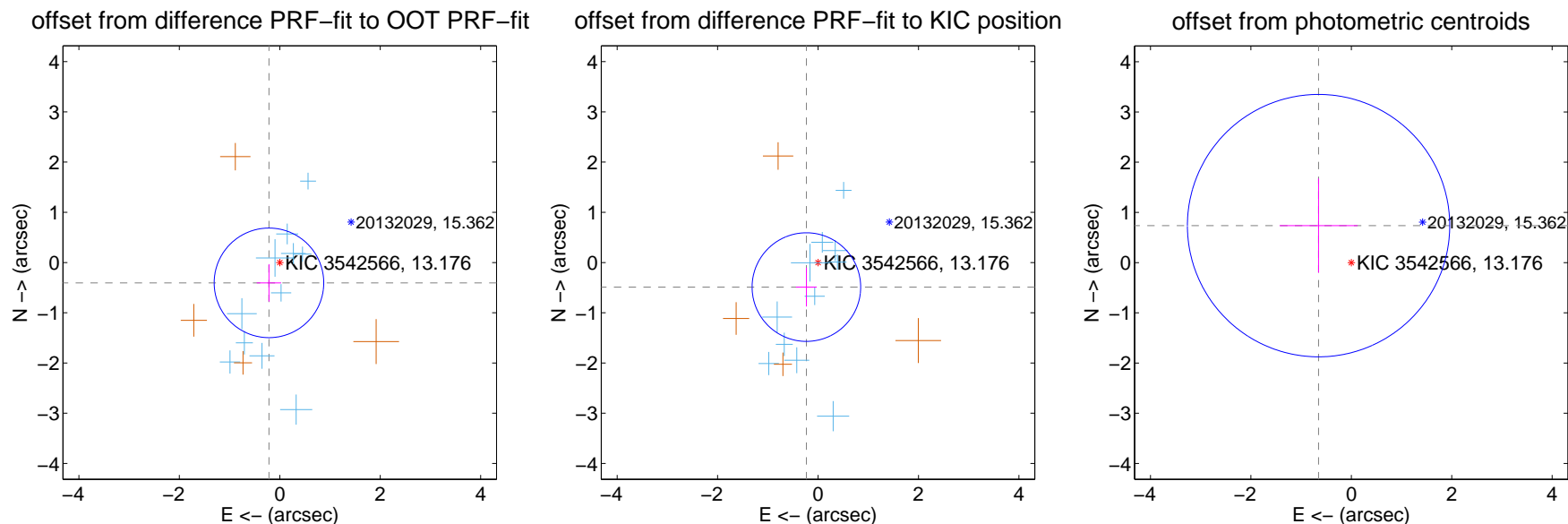
DV Centroid Data

Supplemental centroid analysis for 003542566-01. Kepler magnitude: 13.18. Transit SNR 12.24

There are 11 quarters with good PRF difference image offsets

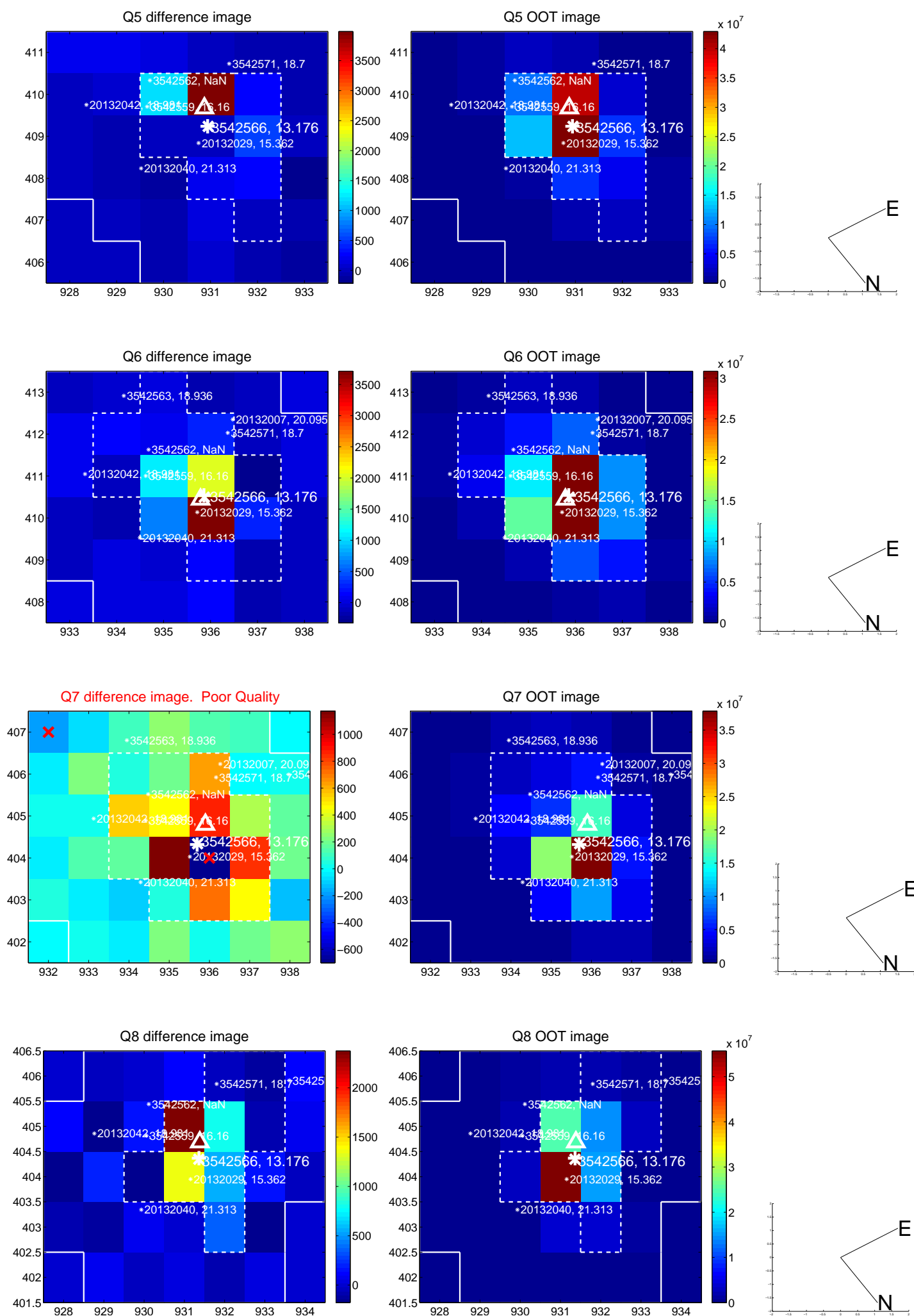
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.458 ± 0.364	1.26	0.216 ± 0.242	-0.405 ± 0.373
PRF-fit source offset from KIC position	0.541 ± 0.360	1.50	0.232 ± 0.207	-0.489 ± 0.387
photometric centroid source offset	0.98 ± 0.87	1.13	0.65 ± 0.78	0.74 ± 0.94

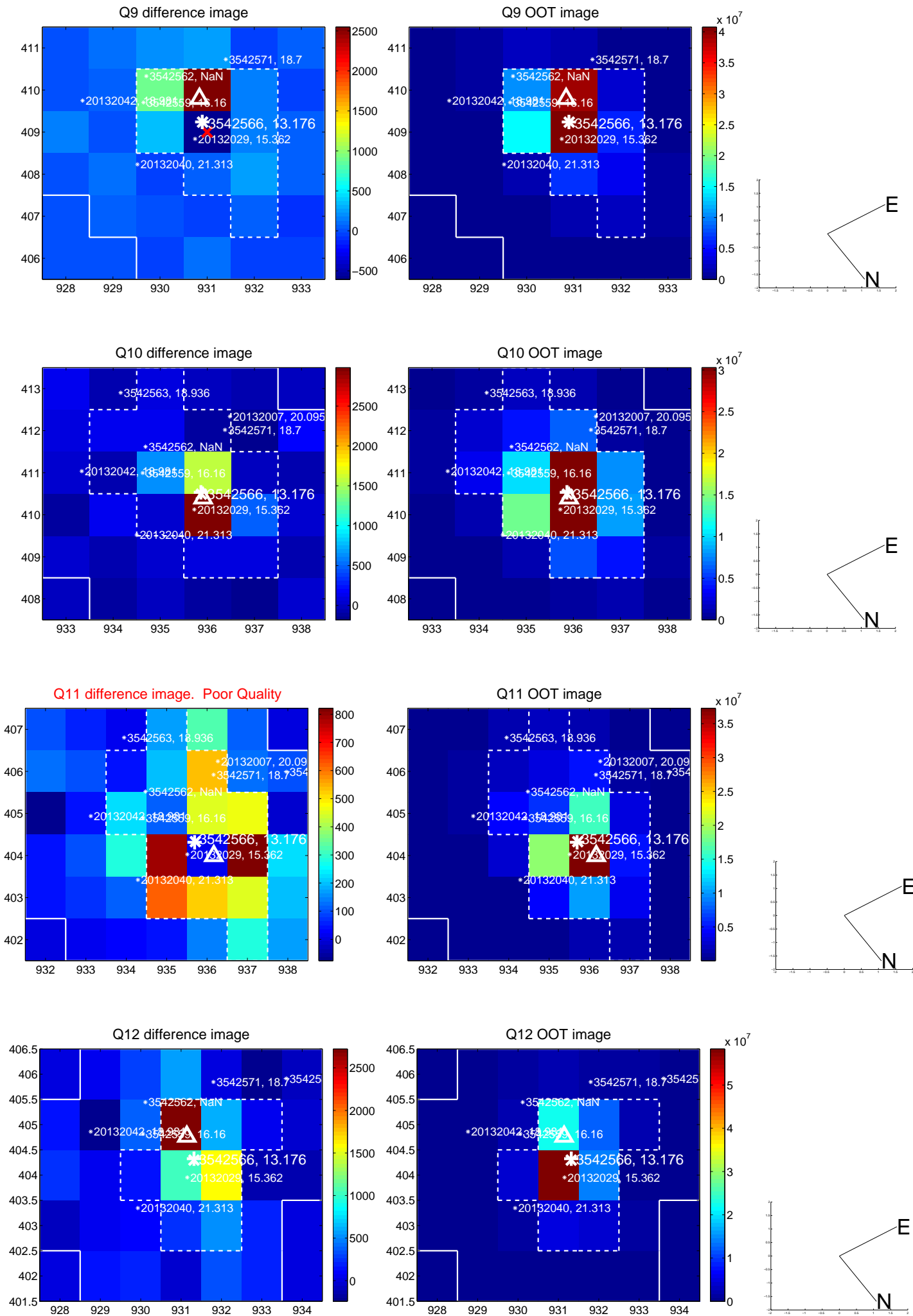


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

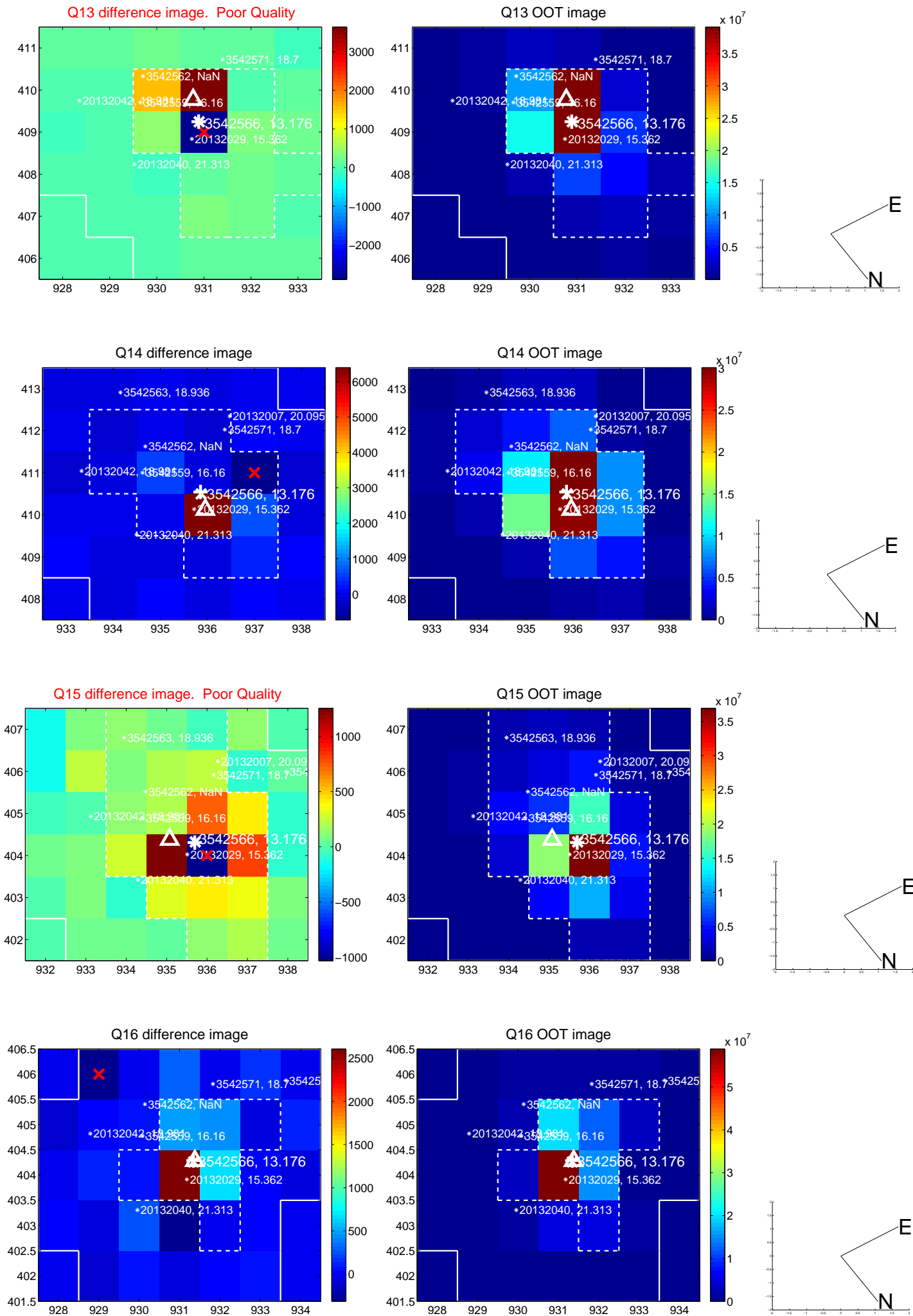
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



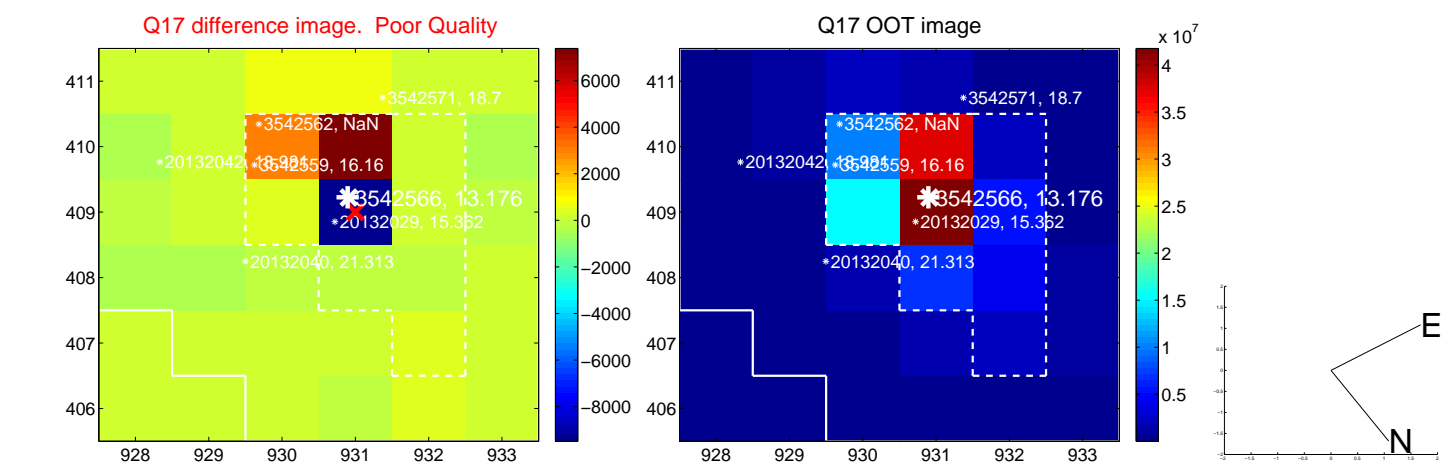
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



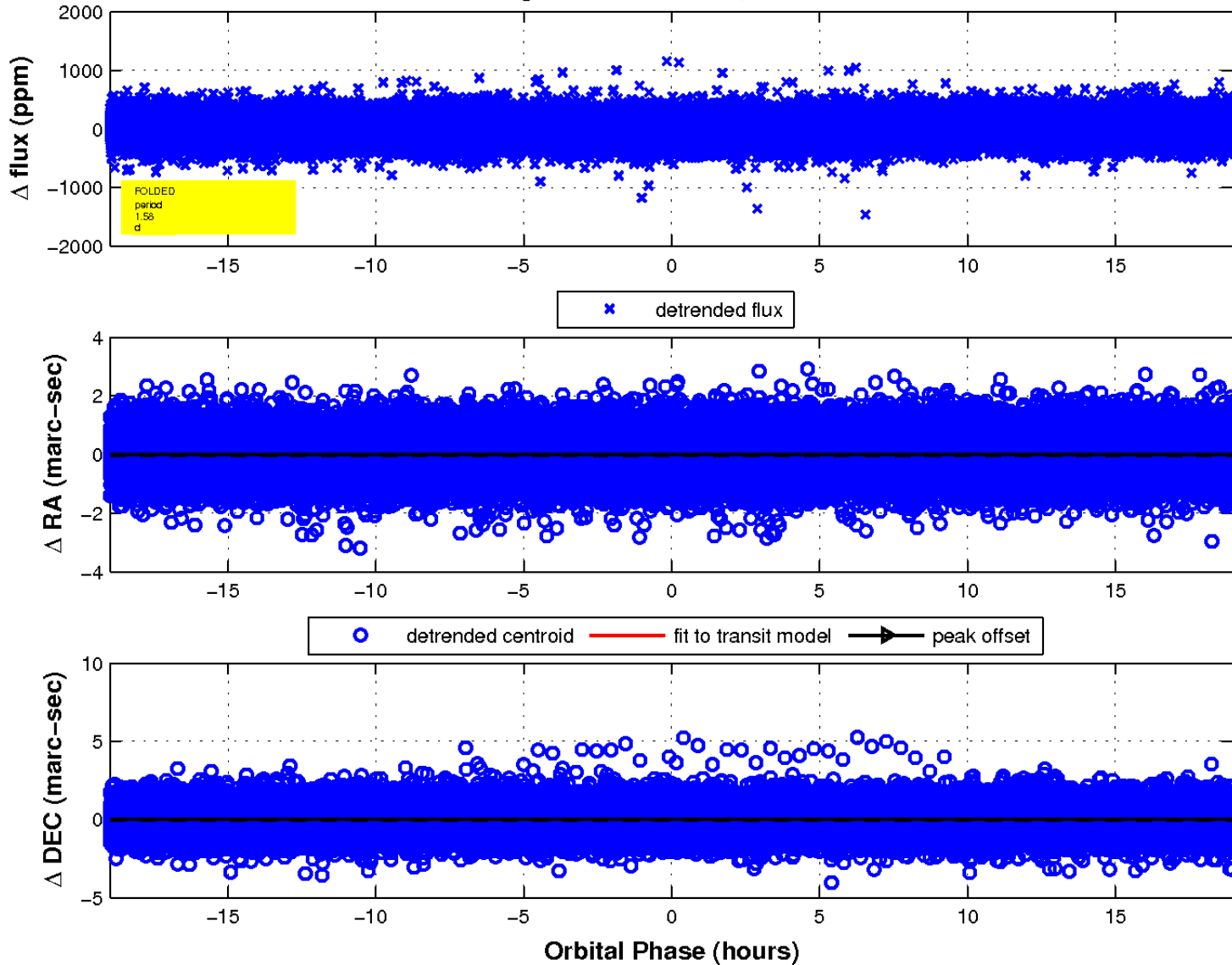
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

