

KIC 007956547

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})
007956547-01	OBS	No	0.744893	132.126363	4.4	8.939	8.1	3.8	3.66	7144	0.91	79574.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007956547-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

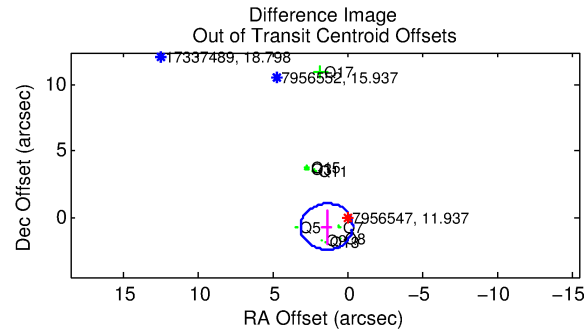
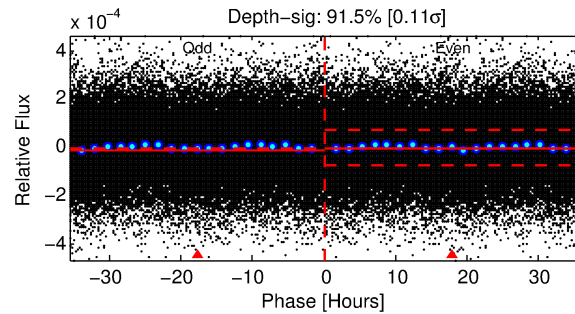
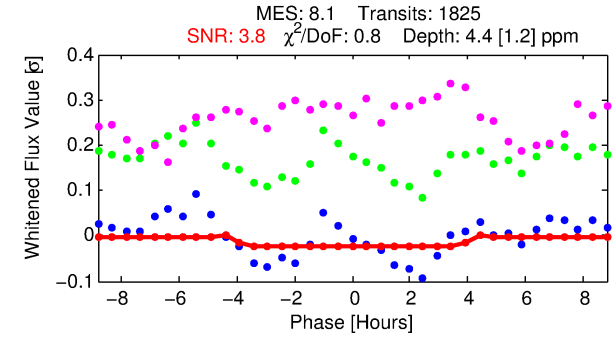
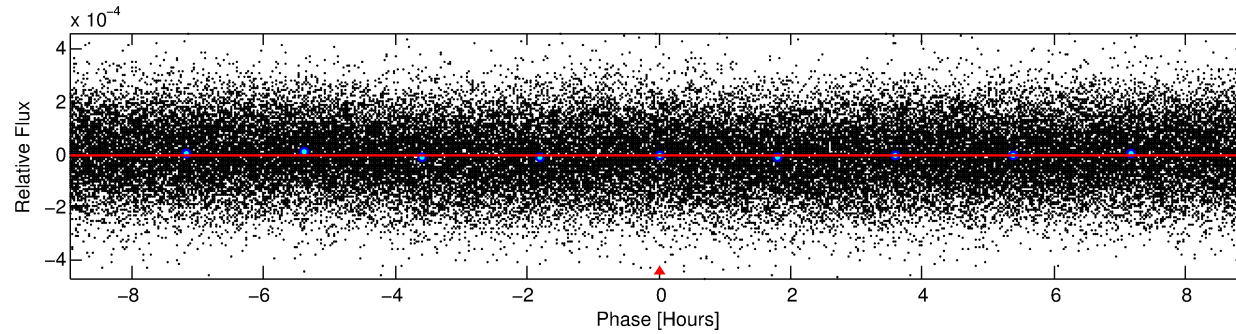
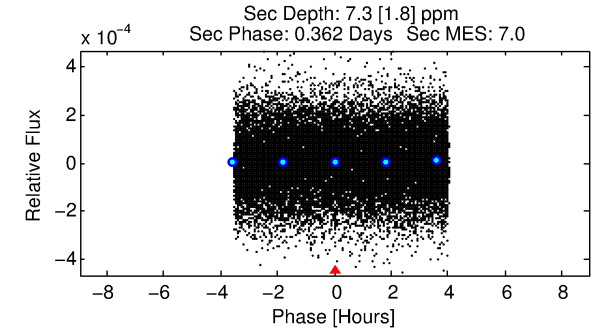
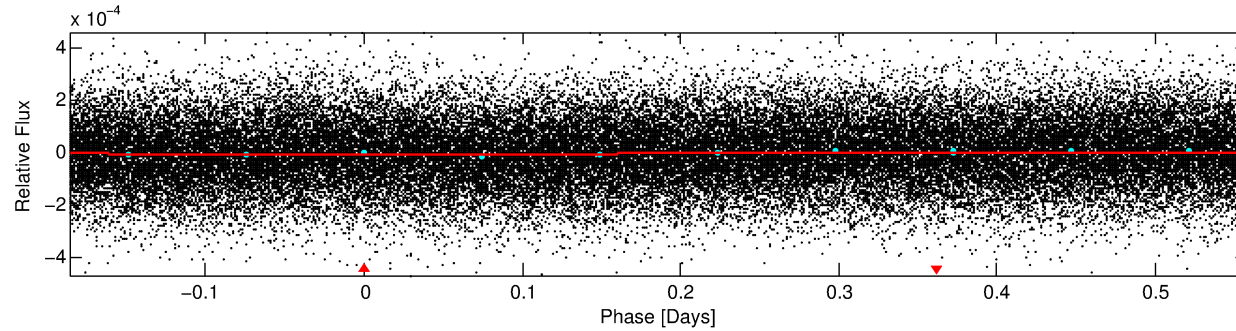
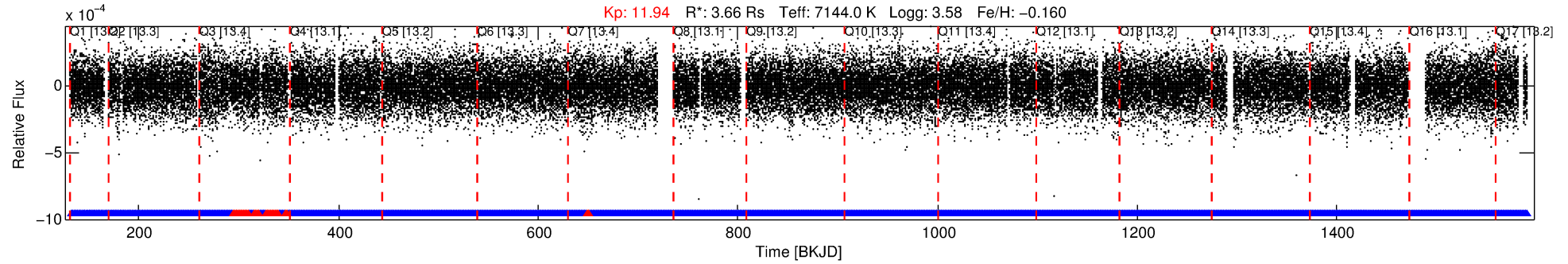
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007956547-01

No Significant Match Found

DV One-Page Summary

KIC: 7956547 Candidate: 1 of 1 Period: 0.745 d



DV Fit Results:

Period = 0.74489 [0.00004] d
Epoch = 132.1264 [0.0160] BKJD
 $R_p/R^* = 0.0023$ [0.0008]
 $a/R^* = 1.00$ [0.01]
 $b = 0.91$ [0.36]
 $S_{\text{eff}} = 79574.98$ [44260.44]
 $T_{\text{eq}} = 4283$ [596] K
 $R_p = 0.91$ [0.45] R_{e}
 $a = 0.0198$ [0.0067] AU
 $A_g = 1.89$ [1.71] [0.52σ]
 $T_{\text{eff}} = 7764$ [1438] K [2.24σ]

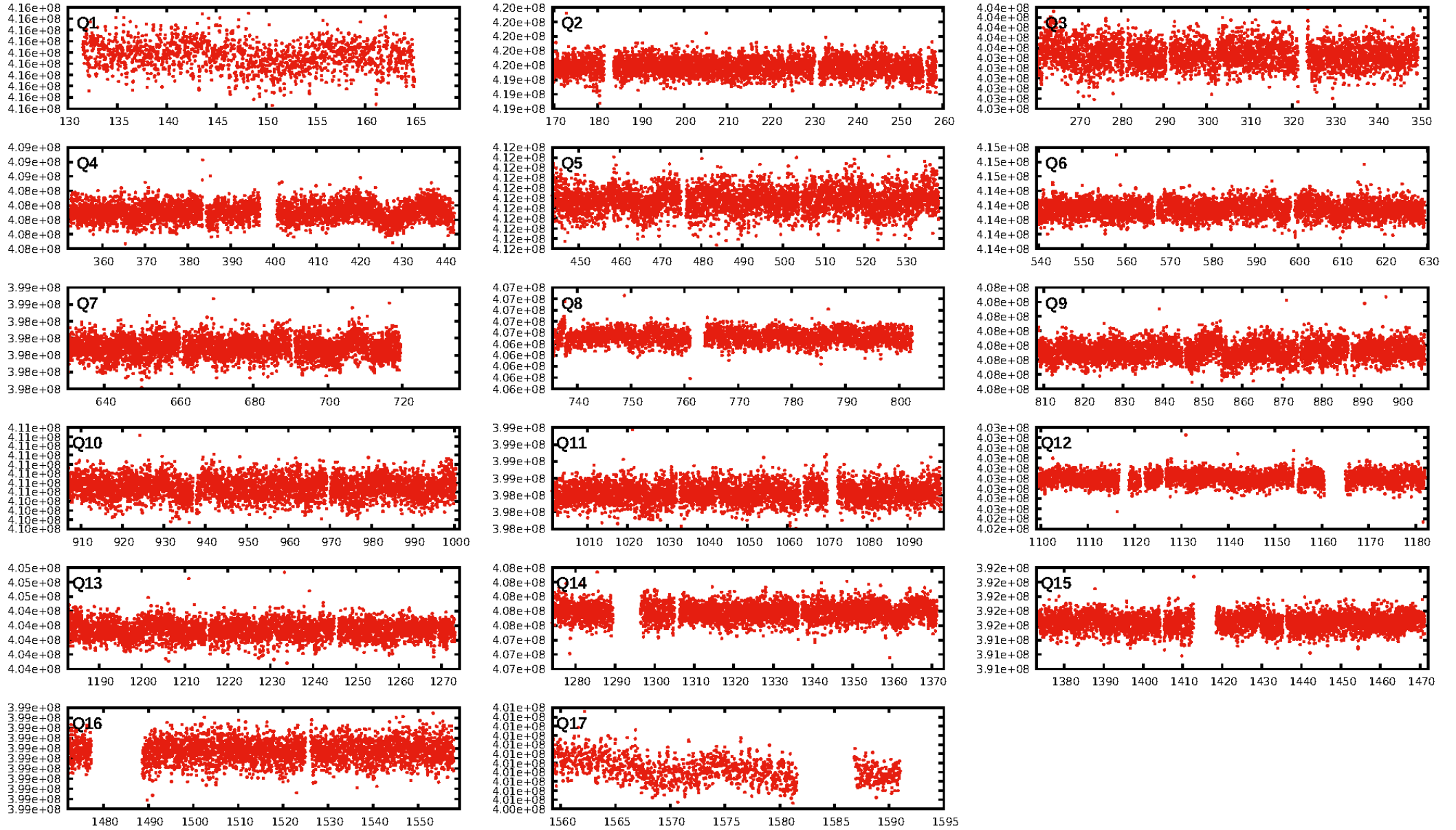
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [1697/1742]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.524 arcsec [2.63σ]
KicOffset-rm: 1.411 arcsec [2.06σ]
OotOffset-st: 0/4/1/4 [9]
KicOffset-st: 0/4/1/4 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 1.00 [17/17]

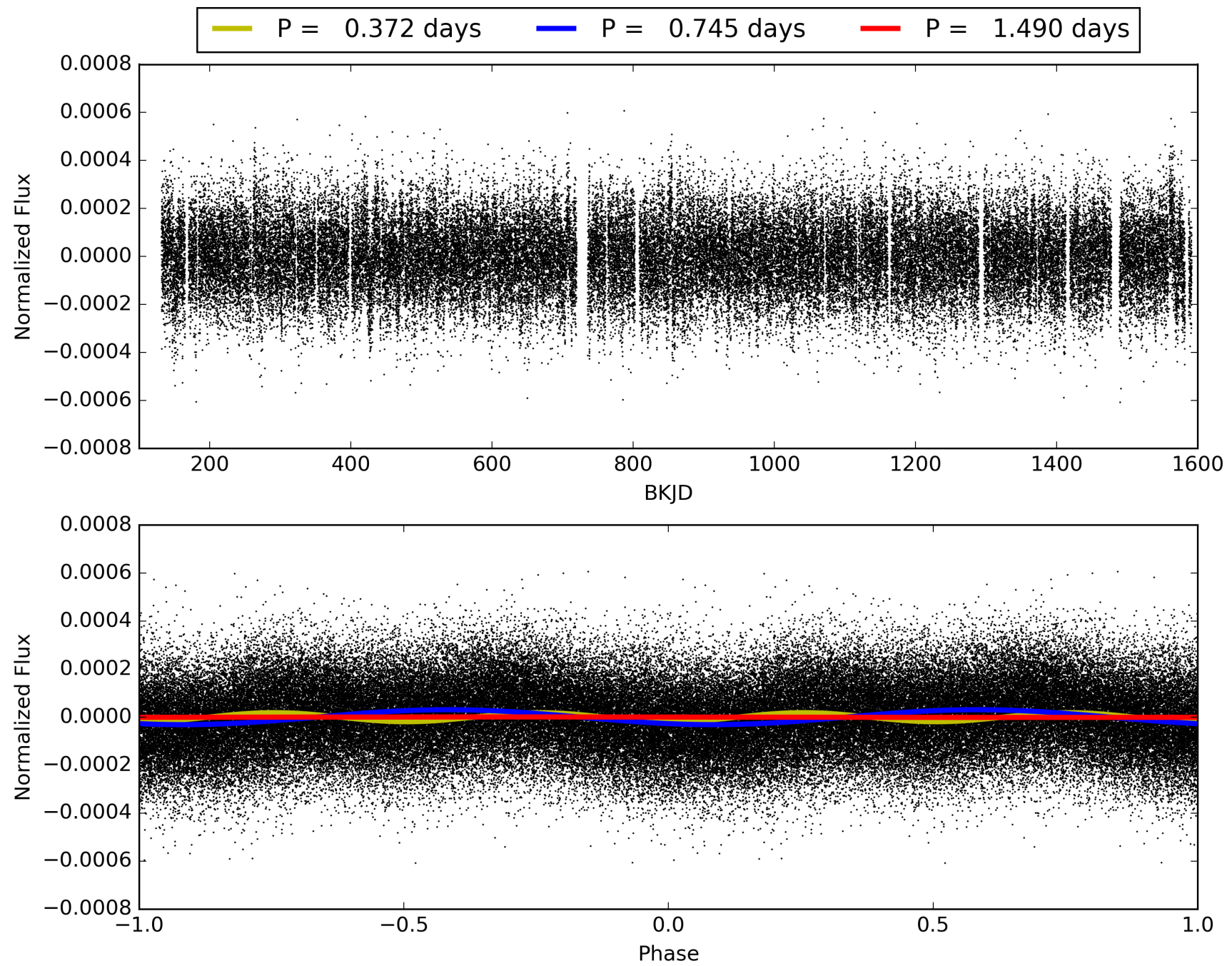
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:18:21 Z

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

TCE 007956547-01, PDC Light Curves

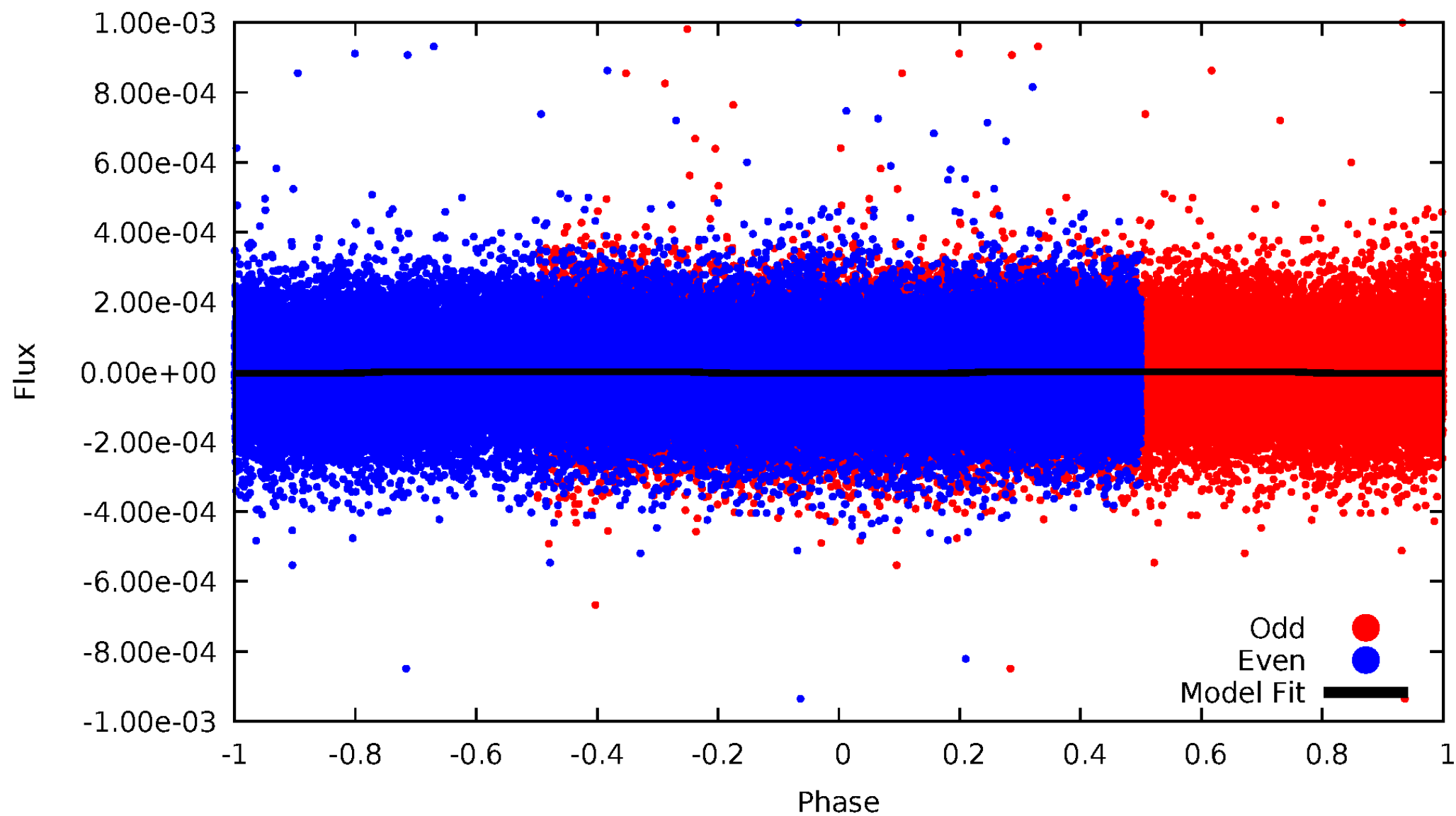


TCE 007956547-01



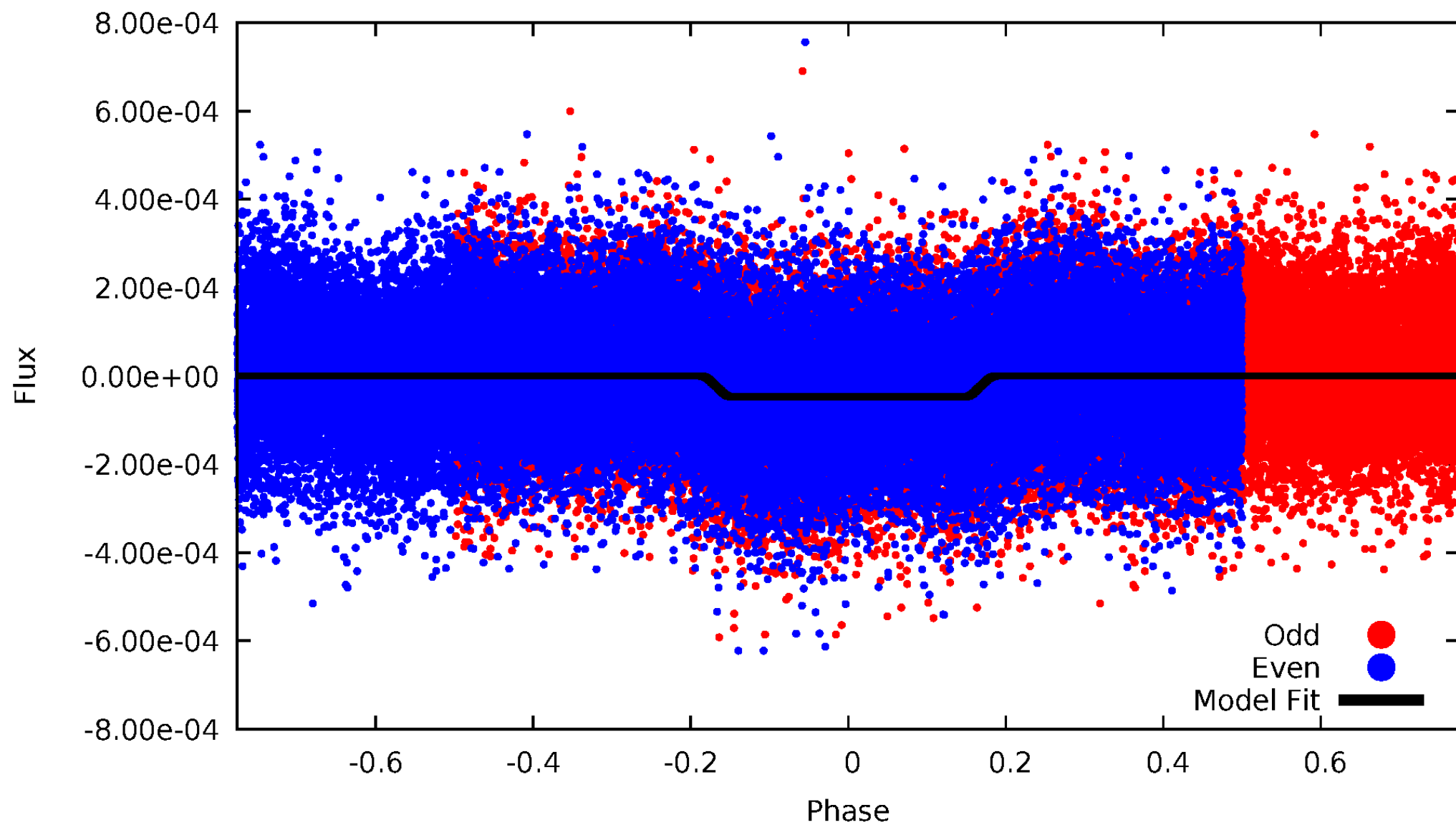
DV Odd/Even

TCE 007956547-01



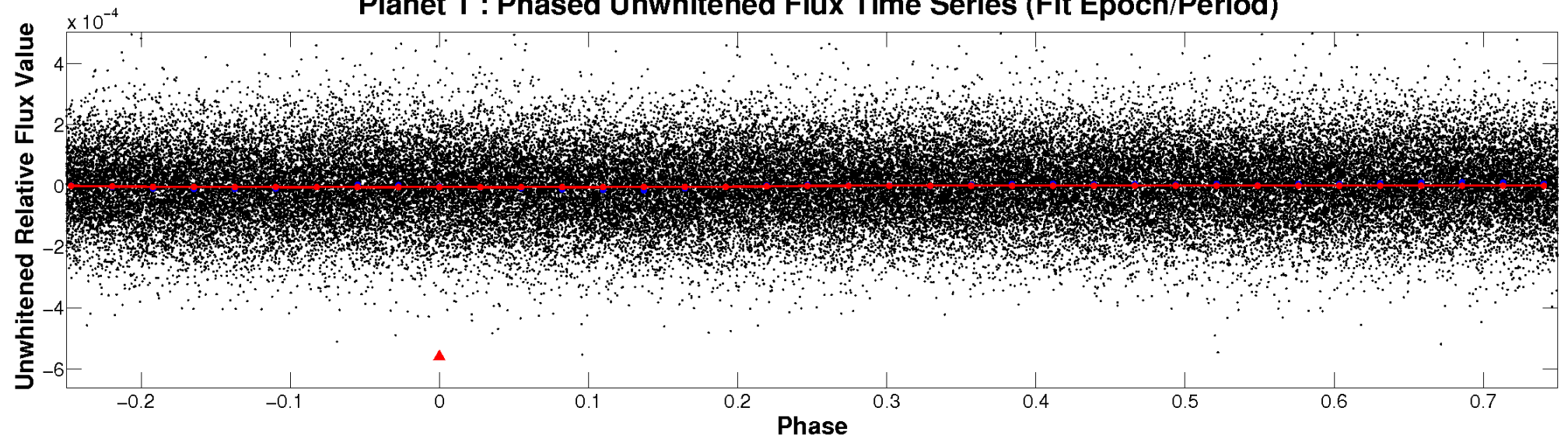
ALT Odd/Even

TCE 007956547-01

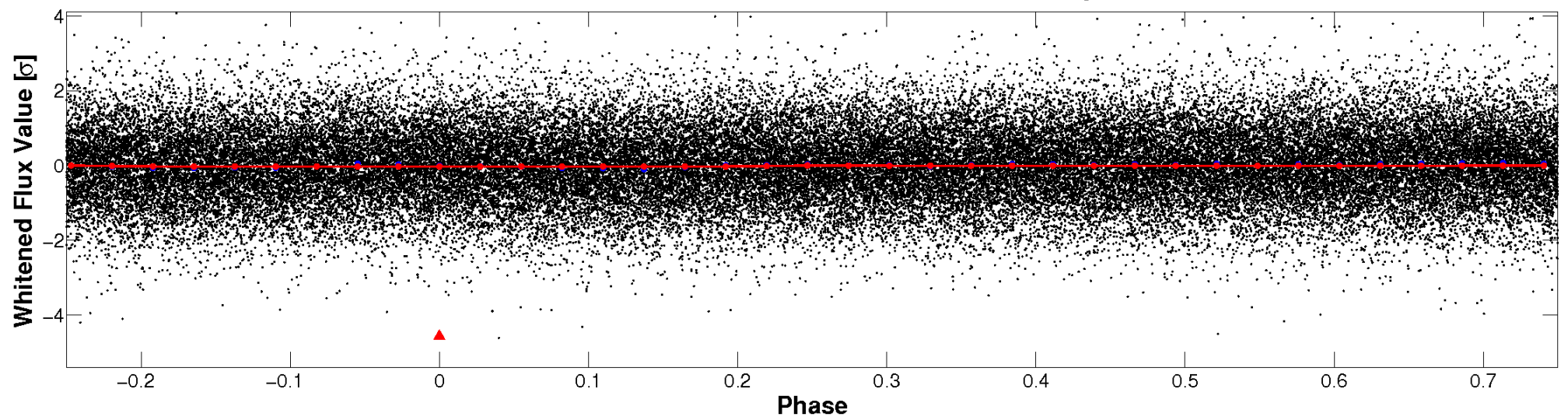


Non-Whitened Vs. Whitened Light Curve

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

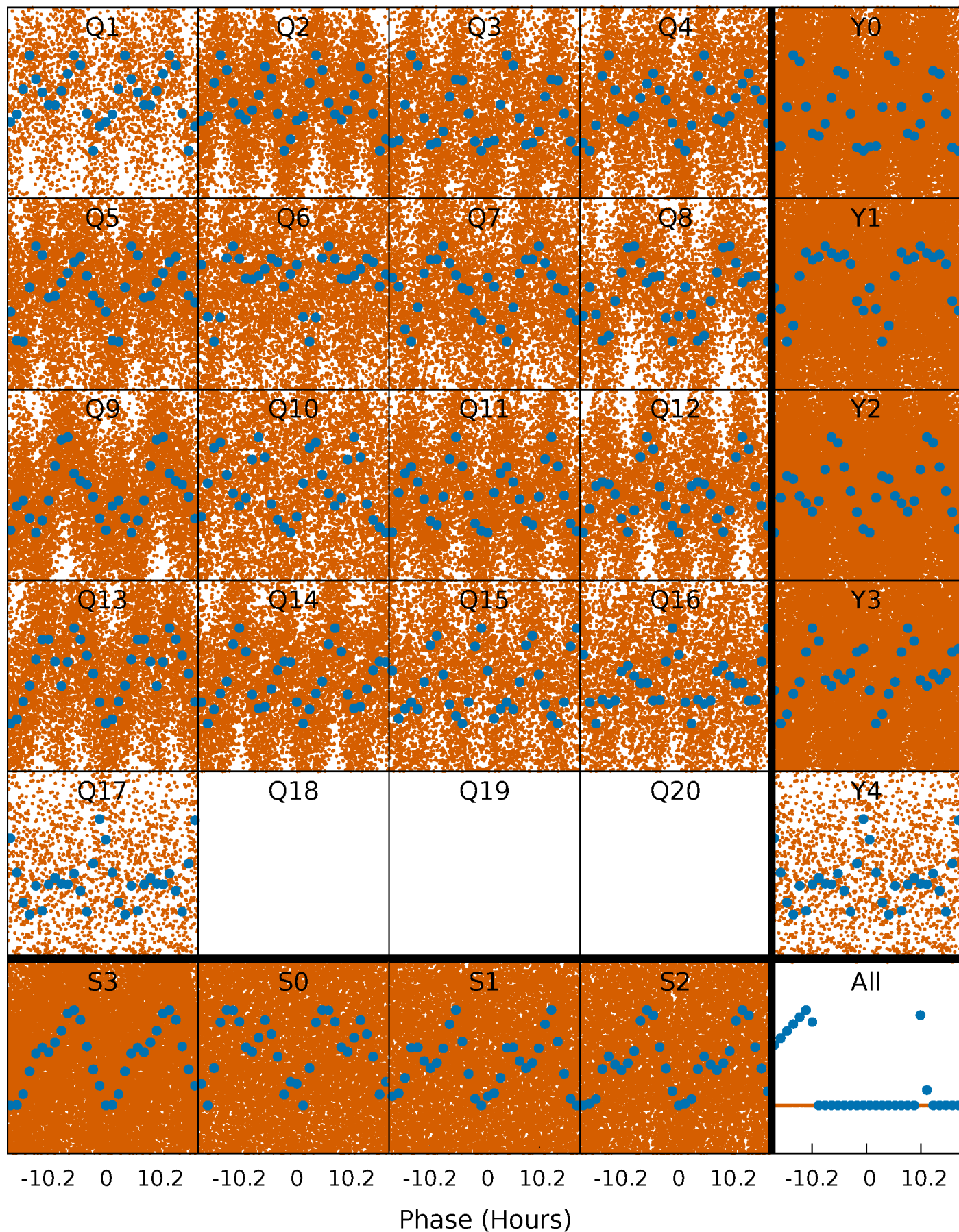


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



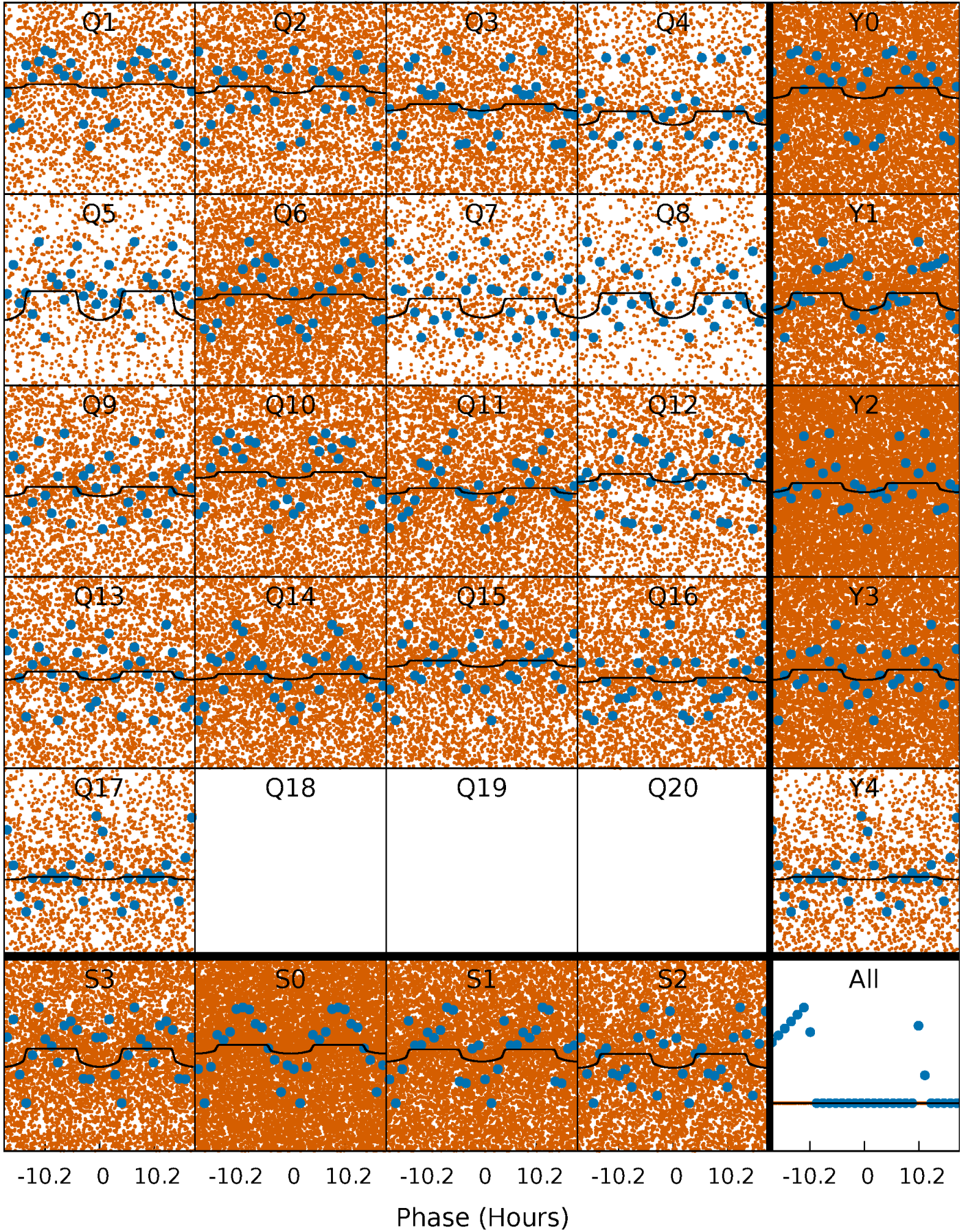
PDC Quarter-Phased Transit Curves

TCE 007956547-01 P= 0.744893 Days $T_0=132.126362$ (BKJD)



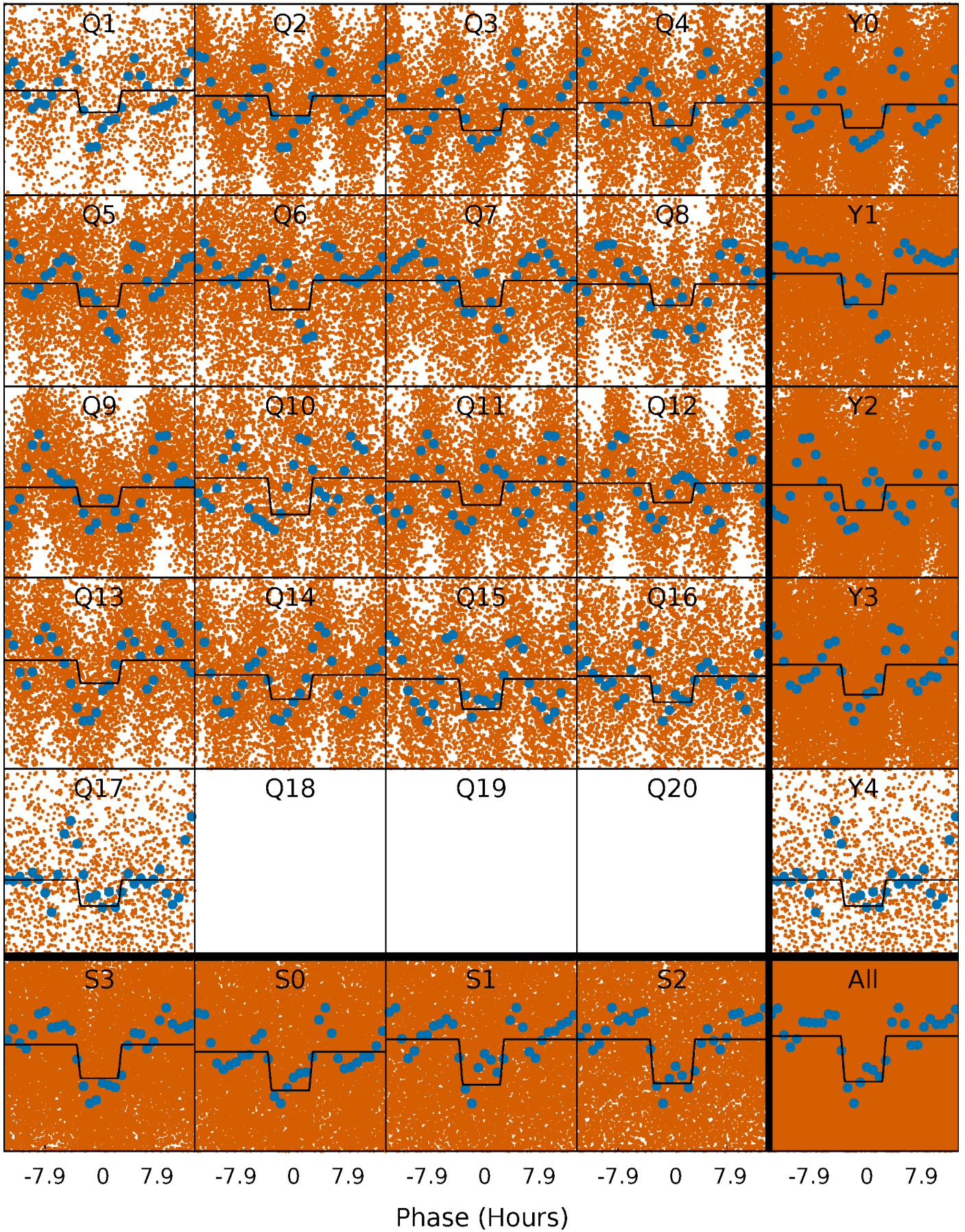
DV Quarter-Phased Transit Curves

TCE 007956547-01 P= 0.744893 Days $T_0=132.126362$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

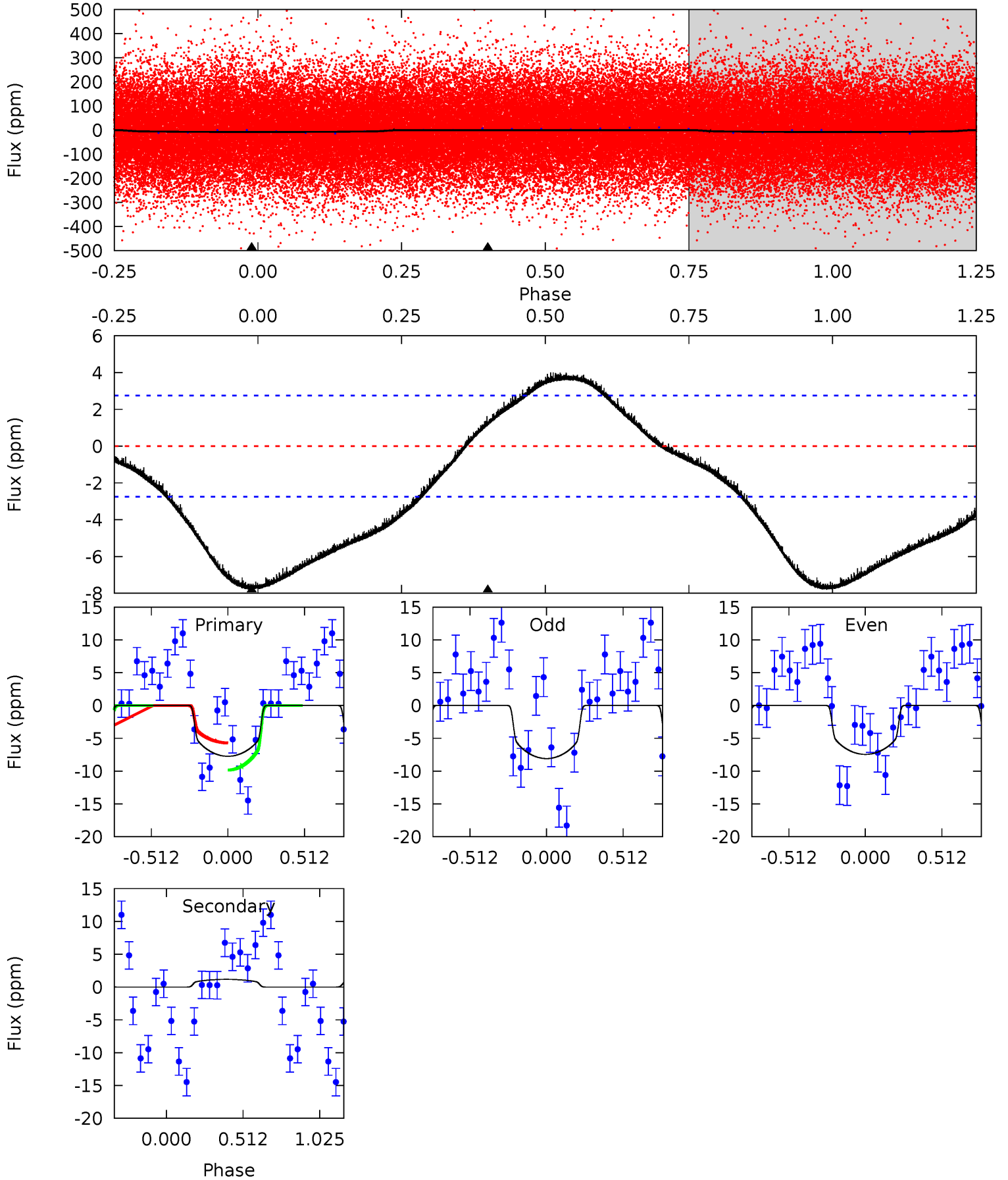
TCE 007956547-01 P= 0.744999 Days $T_0=132.090109$ (BKJD)



DV Model-Shift Uniqueness Test

007956547-01, P = 0.744893 Days, E = 131.381469 Days

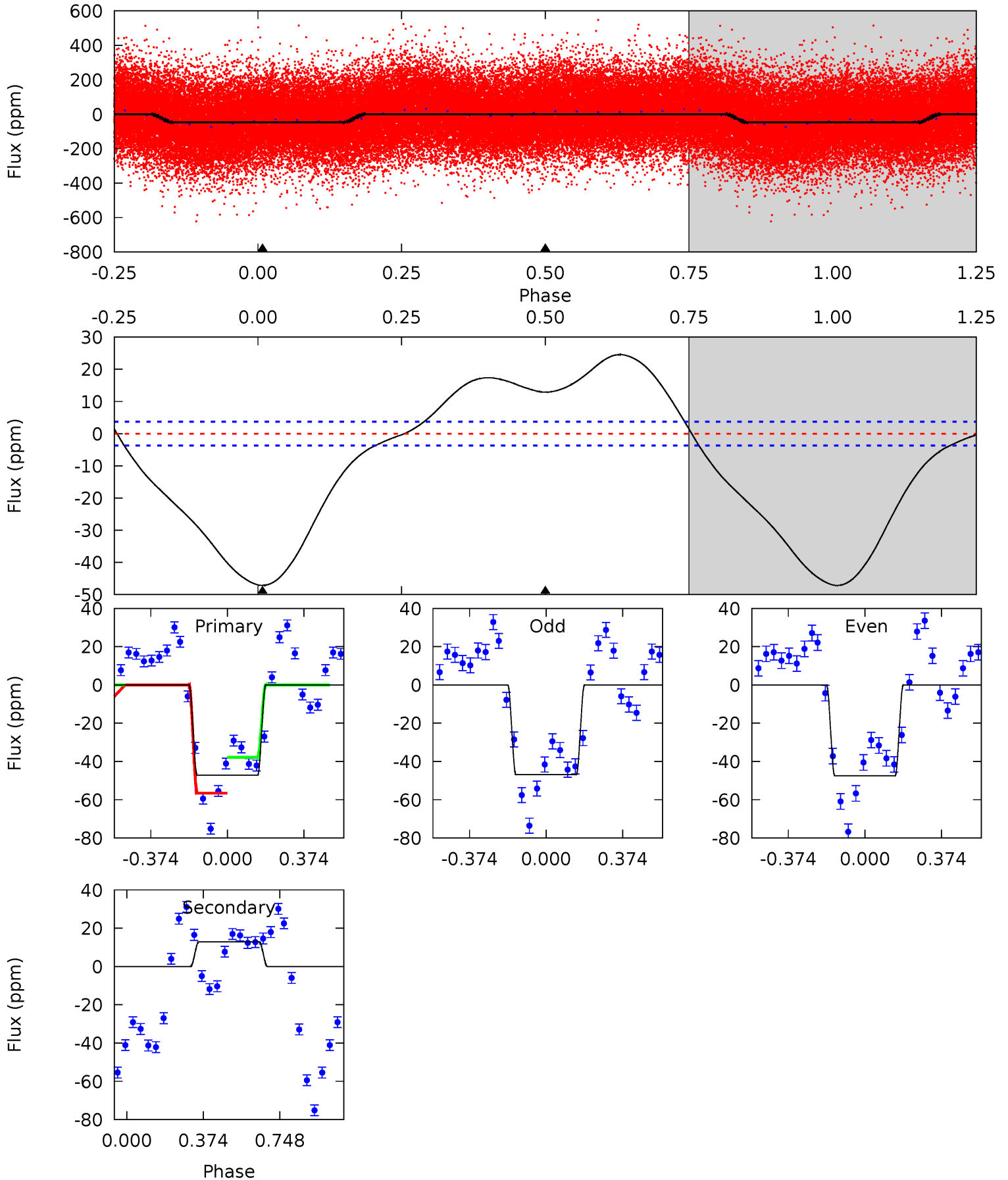
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	-1.80	0	0	4.21	0.66	0.99	11.8	11.8	-1.80	-1.80	0.49	0.84	0.34	3.16



Alt Model-Shift Uniqueness Test

007956547-01, P = 0.744999 Days, E = 131.345110 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.7	-14.9	0	0	4.28	0.89	4.40	54.7	54.7	-14.9	-14.9	0.32	1.00	0.34	10.6



Stellar Parameters For KIC 007956547

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7144^{+174}_{-248}	$3.583^{+0.315}_{-0.056}$	$-0.160^{+0.250}_{-0.250}$	$3.659^{+0.244}_{-1.302}$	$1.871^{+0.179}_{-0.333}$	$0.054^{+0.120}_{-0.010}$
	+2%/-3%	+9%/-2%	+156%/-156%	+7%/-36%	+10%/-18%	+223%/-19%
Source	PHO1	FLK73	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 007956547-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	1 ± 1	$0.85^{+0.30}_{-0.32}$	5827^{+294}_{-488}	-5665^{+517}_{-865}	$-0.322^{+0.201}_{-0.552}$
Alt.	13 ± 1	$2.63^{+0.41}_{-0.49}$	5848^{+279}_{-452}	-5863^{+273}_{-290}	$-0.407^{+0.103}_{-0.187}$

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 $A_{obs} \gg 1.0$

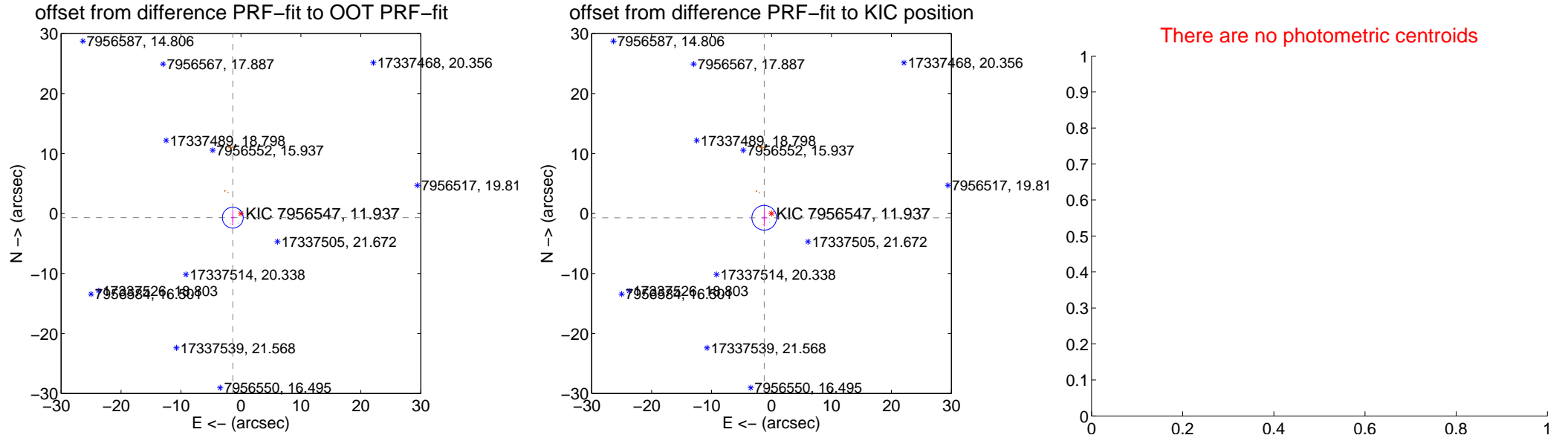
DV Centroid Data

Supplemental centroid analysis for 007956547-01. **Kepler magnitude: 11.94.** Transit SNR 3.84

There are 2 quarters with good PRF difference image offsets

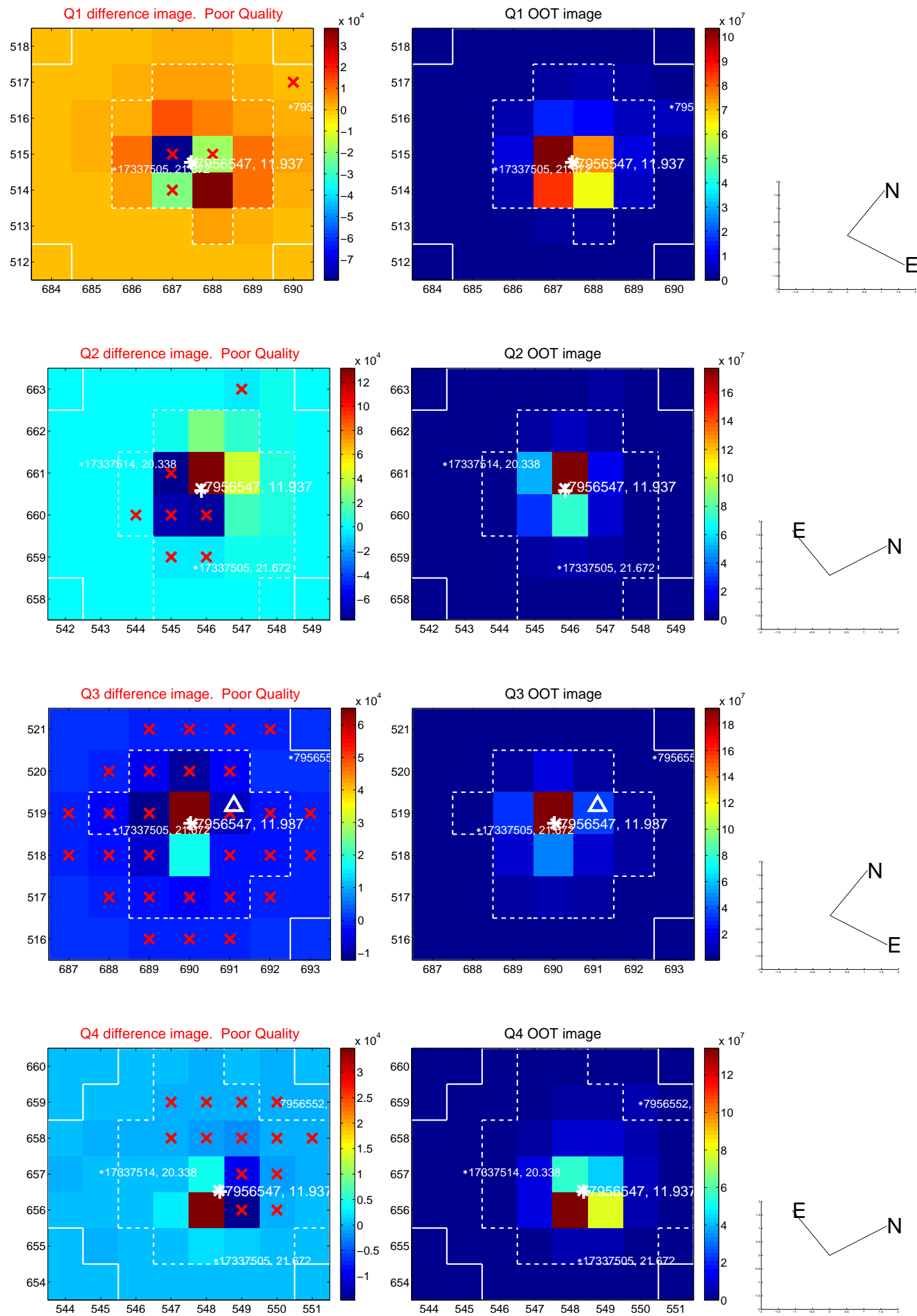
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.524 ± 0.580	2.63	1.358 ± 0.277	-0.692 ± 1.282
PRF-fit source offset from KIC position	1.411 ± 0.686	2.06	1.217 ± 0.349	-0.713 ± 1.431
photometric centroid source offset	—	—	—	—

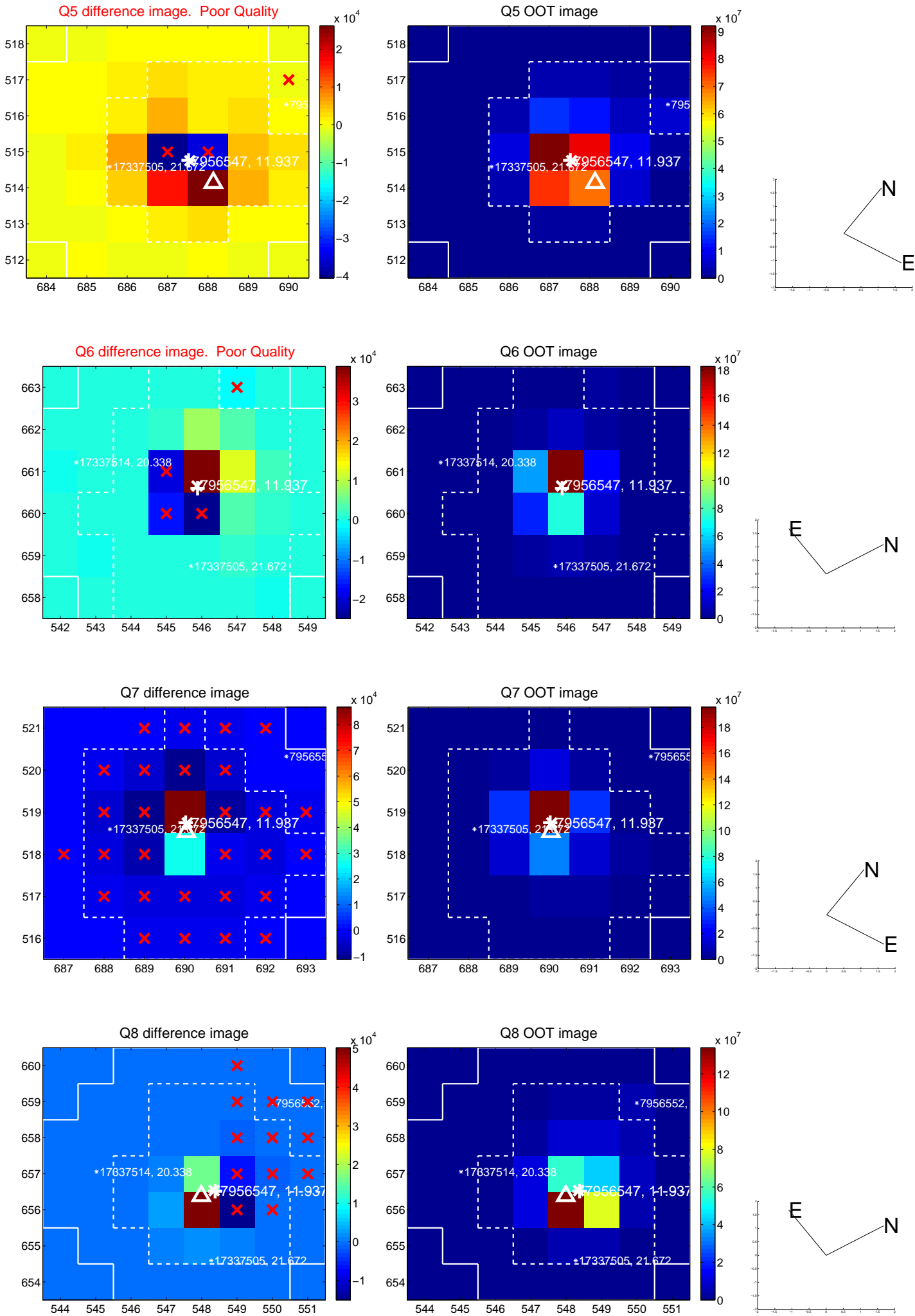


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

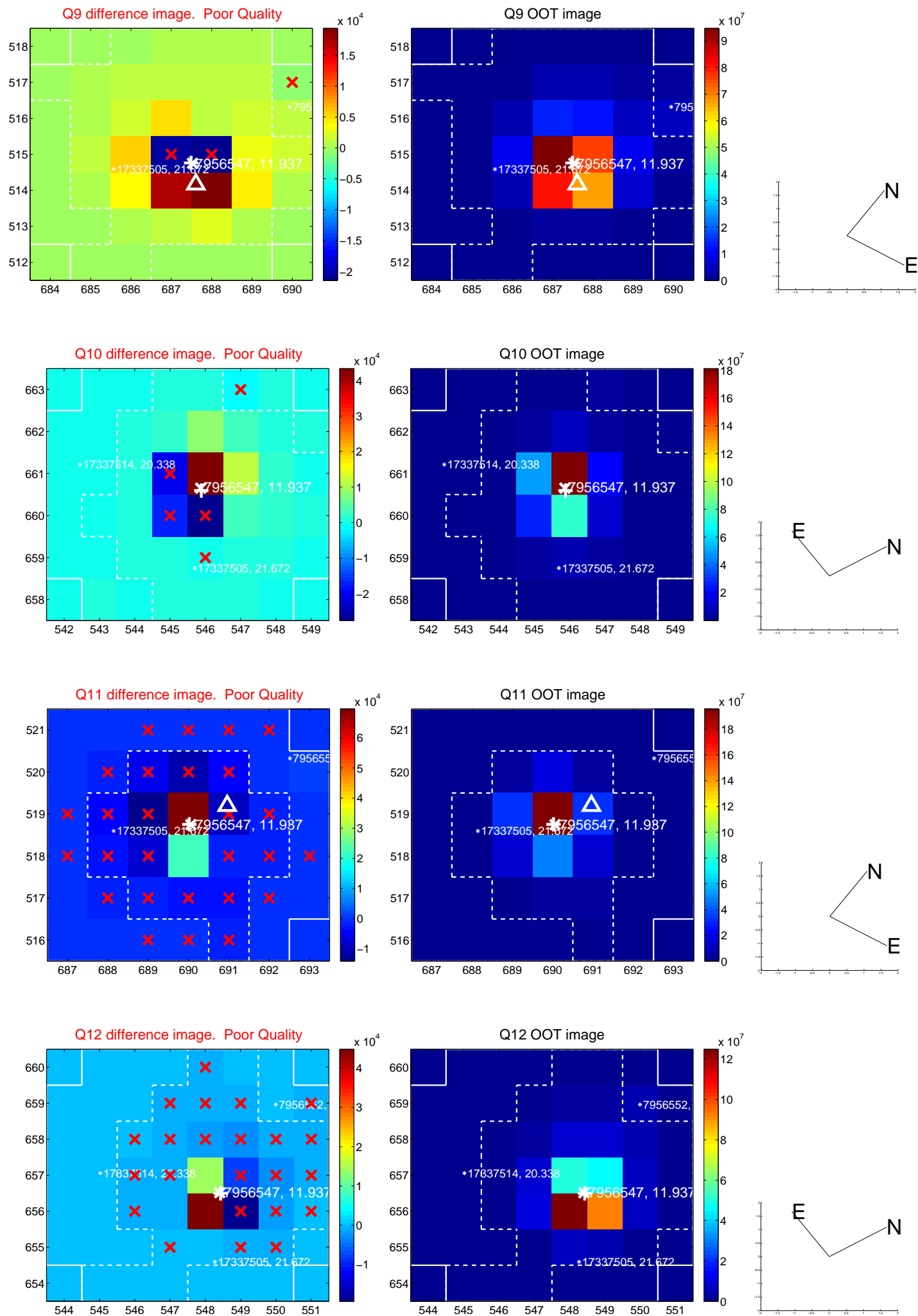
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



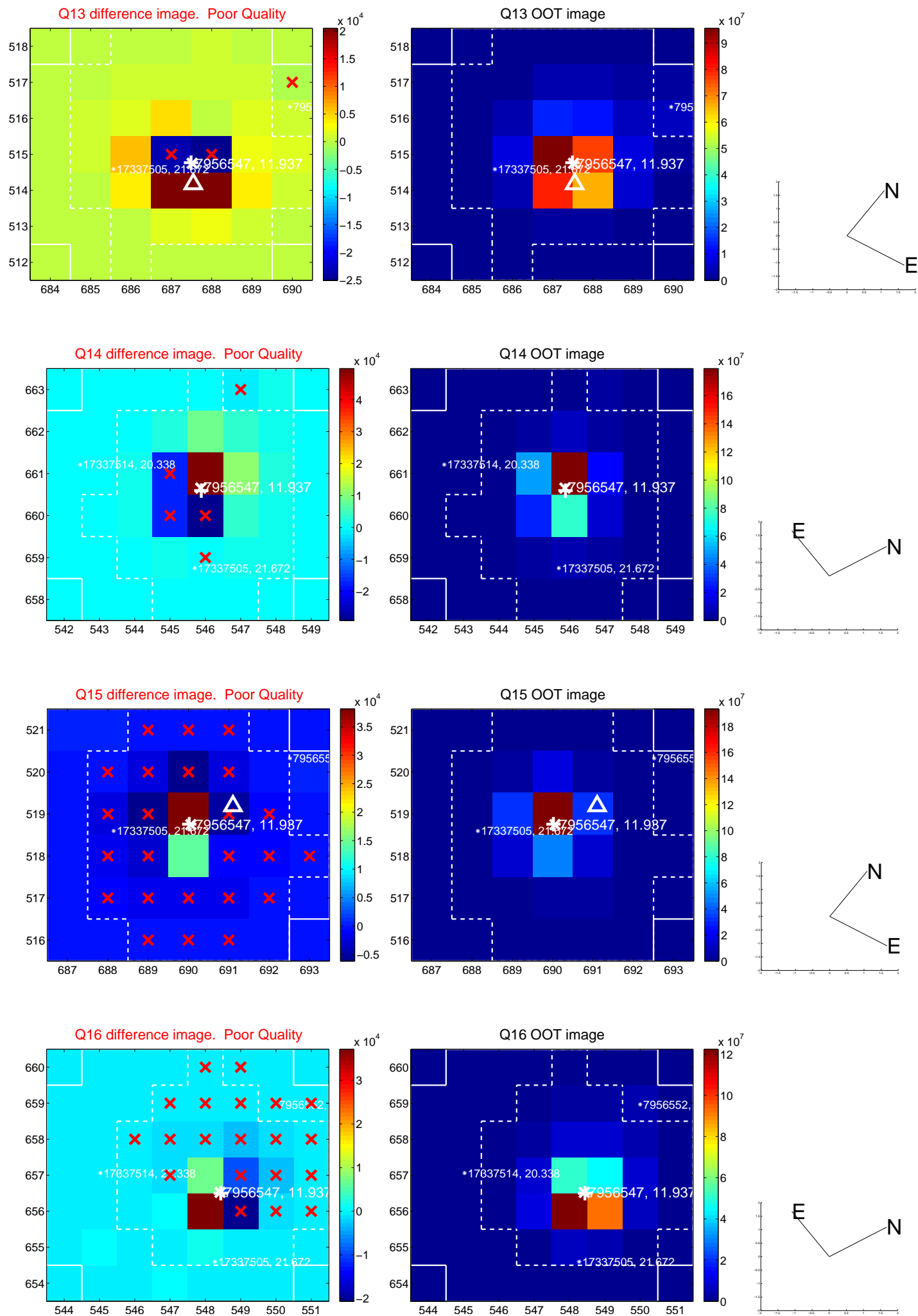
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



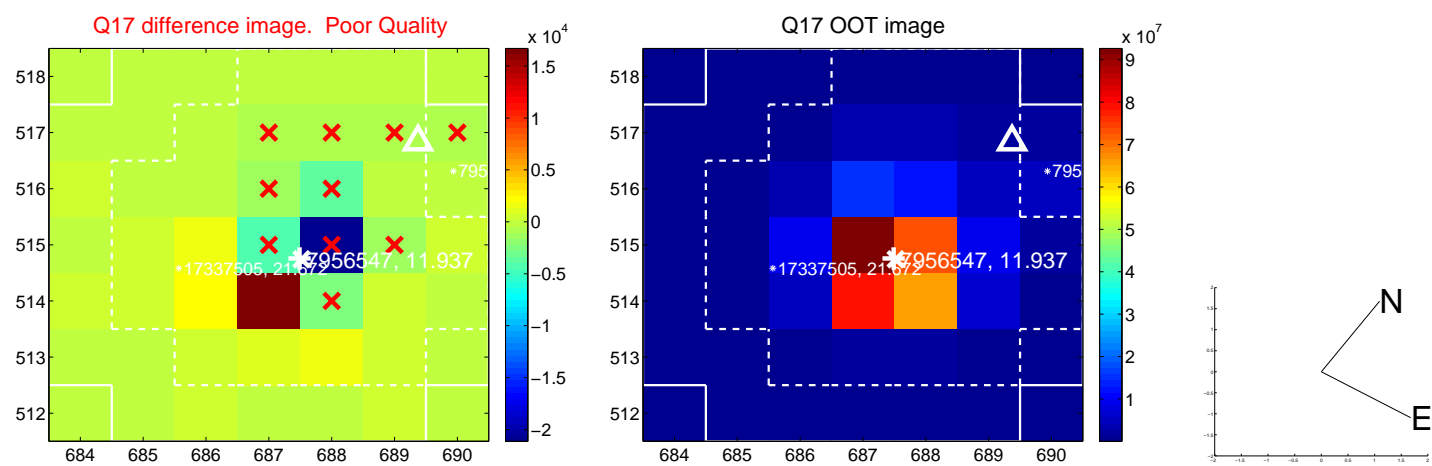
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

