

KIC 006364582

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})
006364582-01	OBS	3456.01	30.860876	138.315857	124.6	4.213	11.6	14.5	0.83	5627	1.08	18.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006364582-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

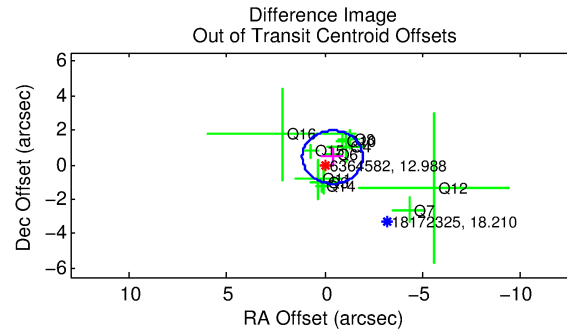
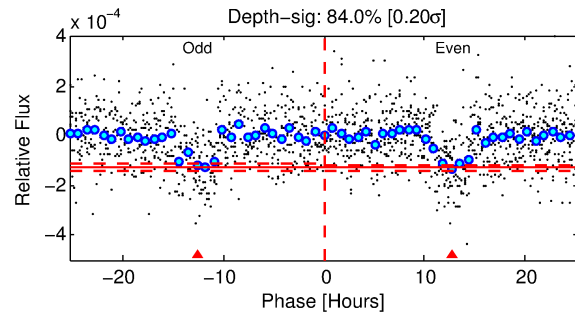
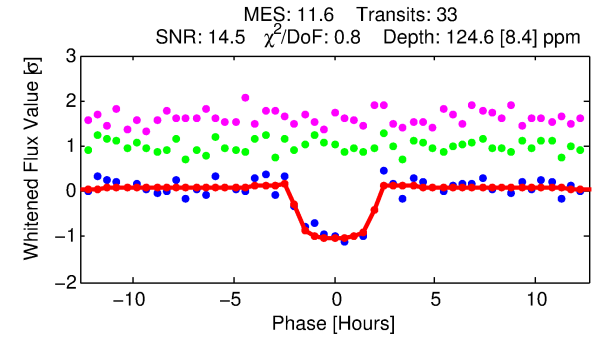
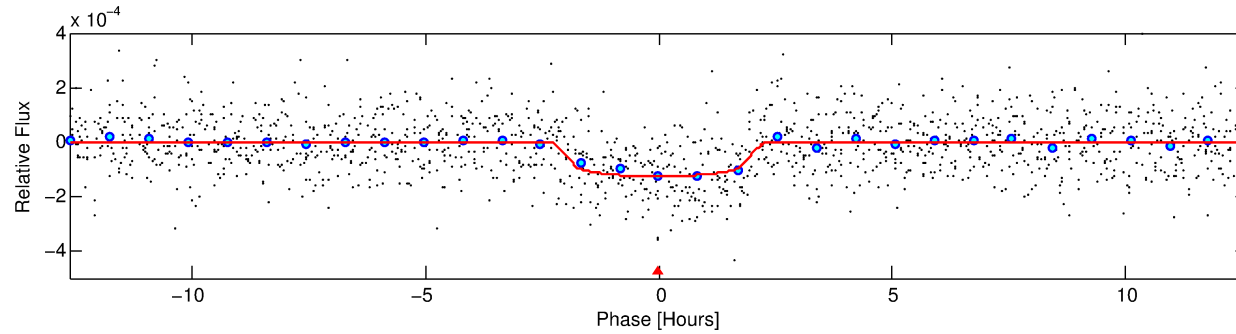
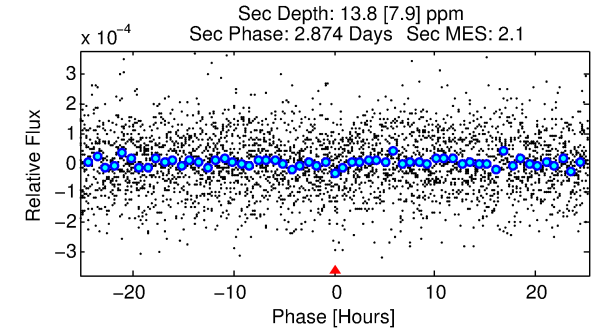
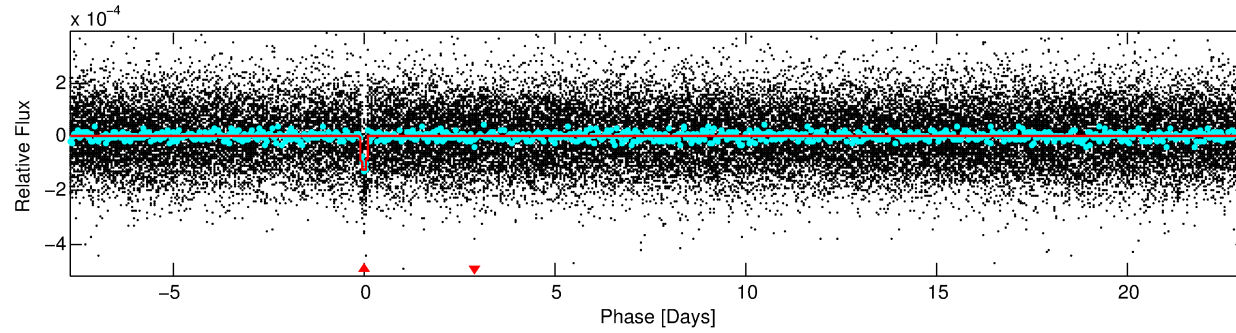
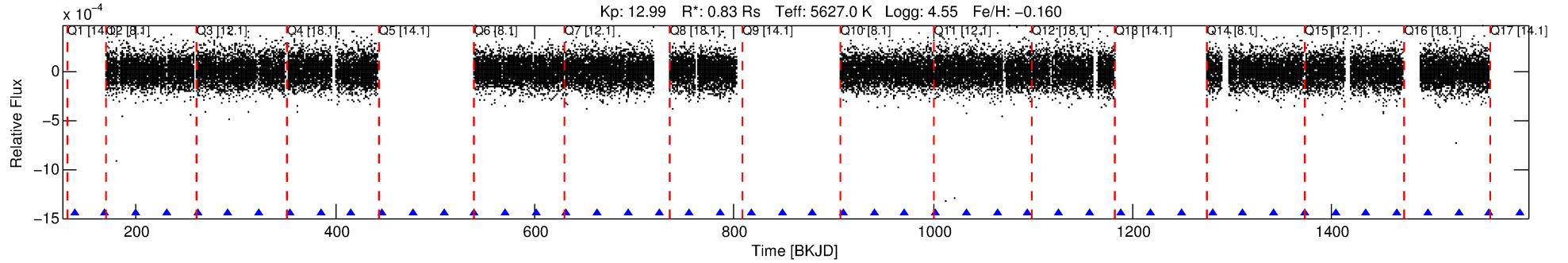
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006364582-01

No Significant Match Found

DV One-Page Summary

KIC: 6364582 Candidate: 1 of 1 Period: 30.861 d
KOI: K03456.01 Corr: 0.987



DV Fit Results:

Period = 30.86088 [0.00021] d
Epoch = 138.3159 [0.0057] BKJD
Rp/R* = 0.0119 [0.0049]
a/R* = 28.74 [55.10]
b = 0.87 [0.54]
Seff = 18.00 [3.55]
Teq = 525 [26] K
Rp = 1.08 [0.47] Re
a = 0.1861 [0.0216] AU
Ag = 225.85 [232.09] [0.97σ]
Teffp = 3148 [799] K [3.28σ]

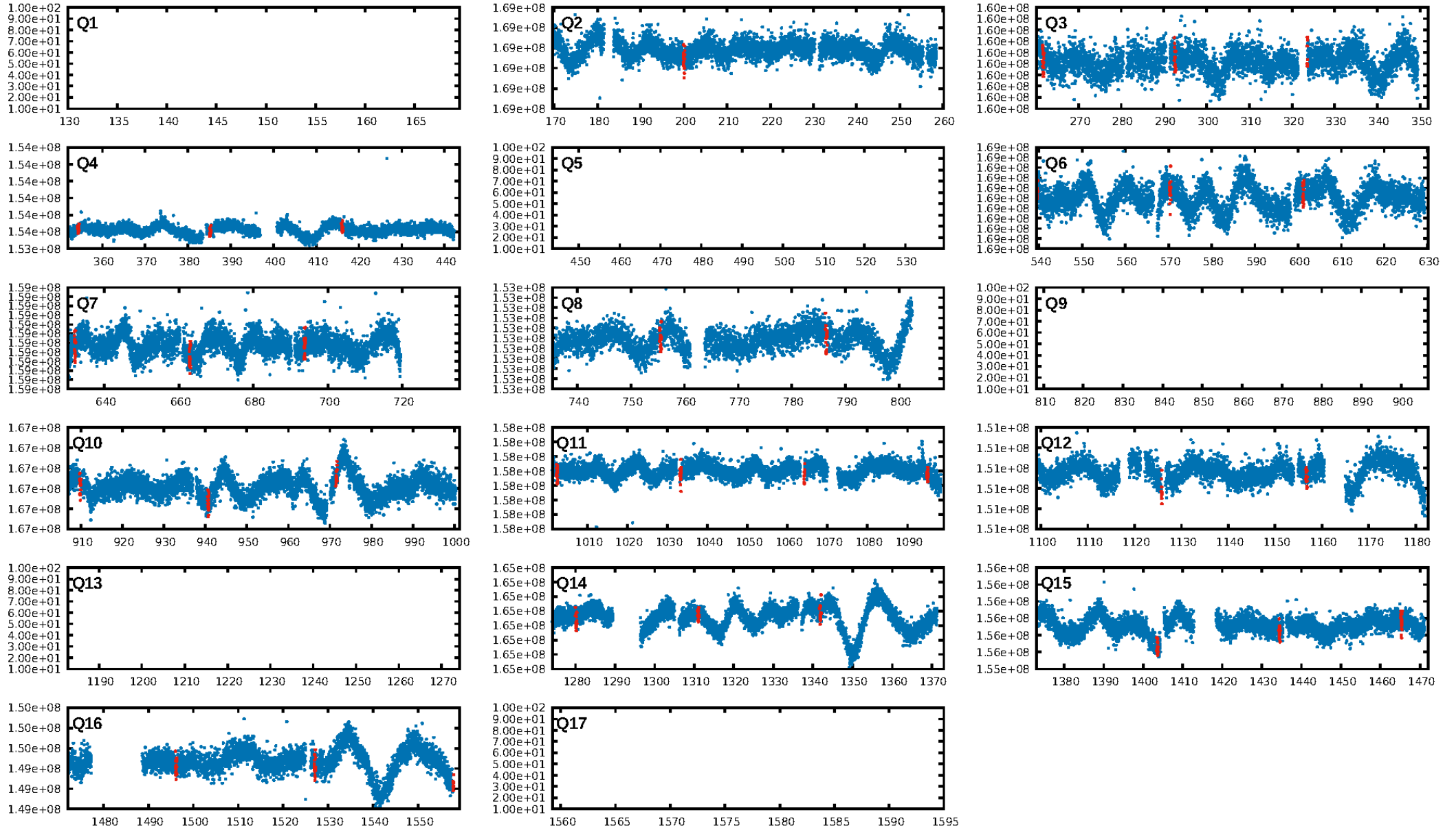
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 90.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.90e-29
RollingBand-fgt: 1.00 [33/33]
GhostDiagnostic-chr: 4.527
Centroid-sig: 40.0%
Centroid-so: 0.651 arcsec [0.89σ]
OotOffset-rm: 0.585 arcsec [1.14σ]
OotOffset-st: 3/4/4/0 [11]
KicOffset-rm: 0.463 arcsec [0.89σ]
KicOffset-st: 3/4/4/0 [11]
DiffImageQuality-fgm: 0.73 [8/11]
DiffImageOverlap-fno: 1.00 [11/11]

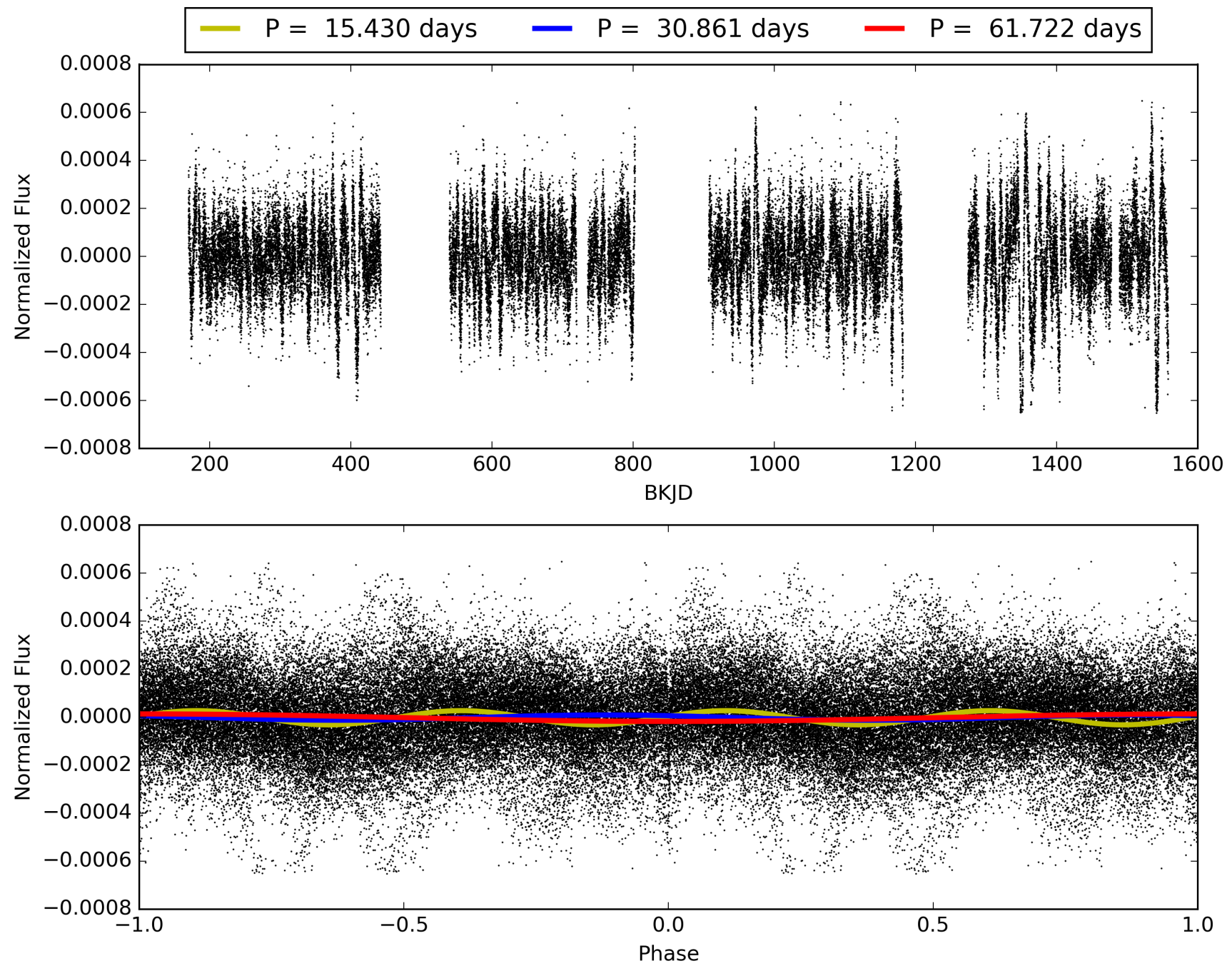
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:01:59 Z

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

TCE 006364582-01, PDC Light Curves

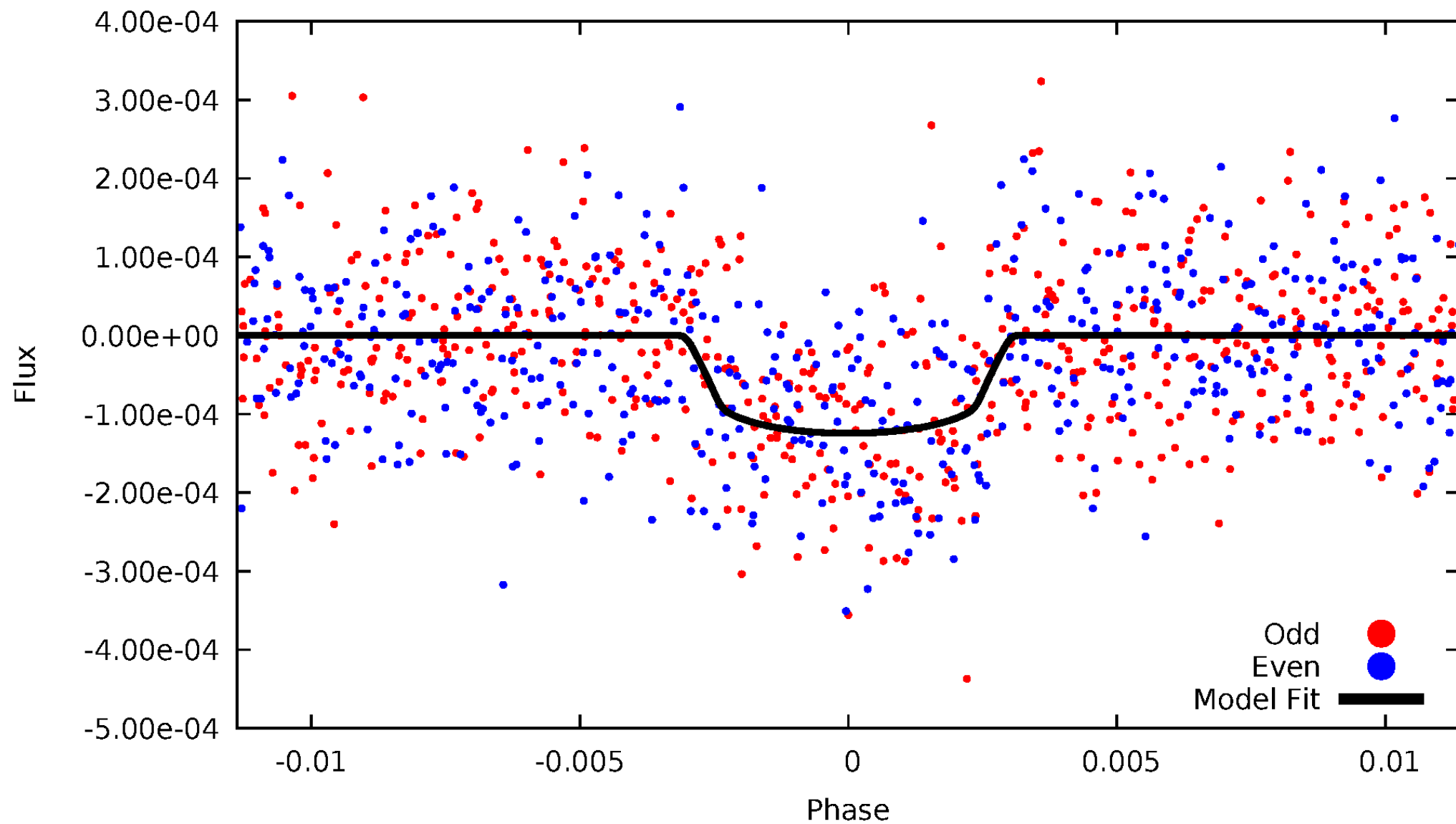


TCE 006364582-01



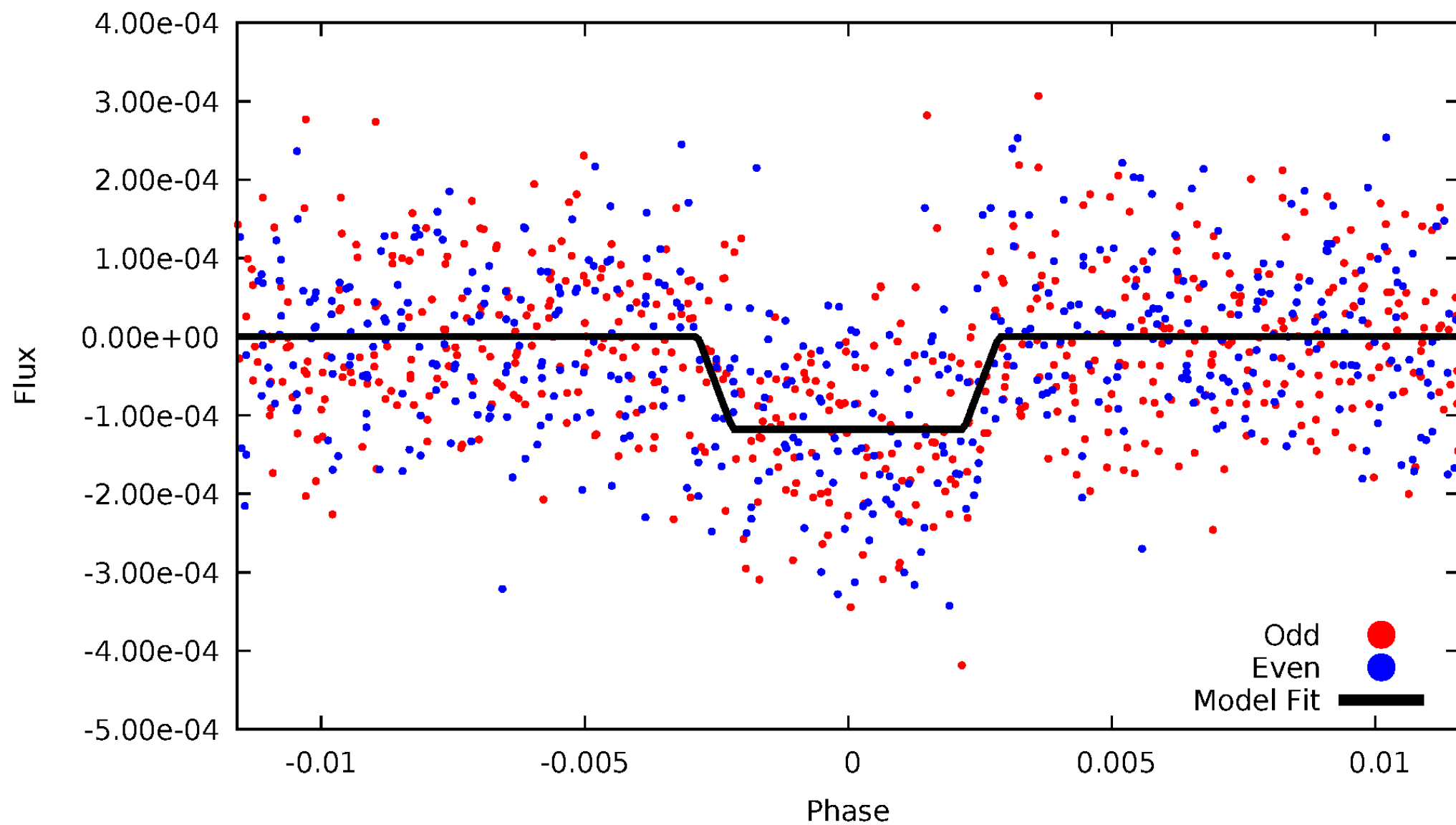
DV Odd/Even

TCE 006364582-01



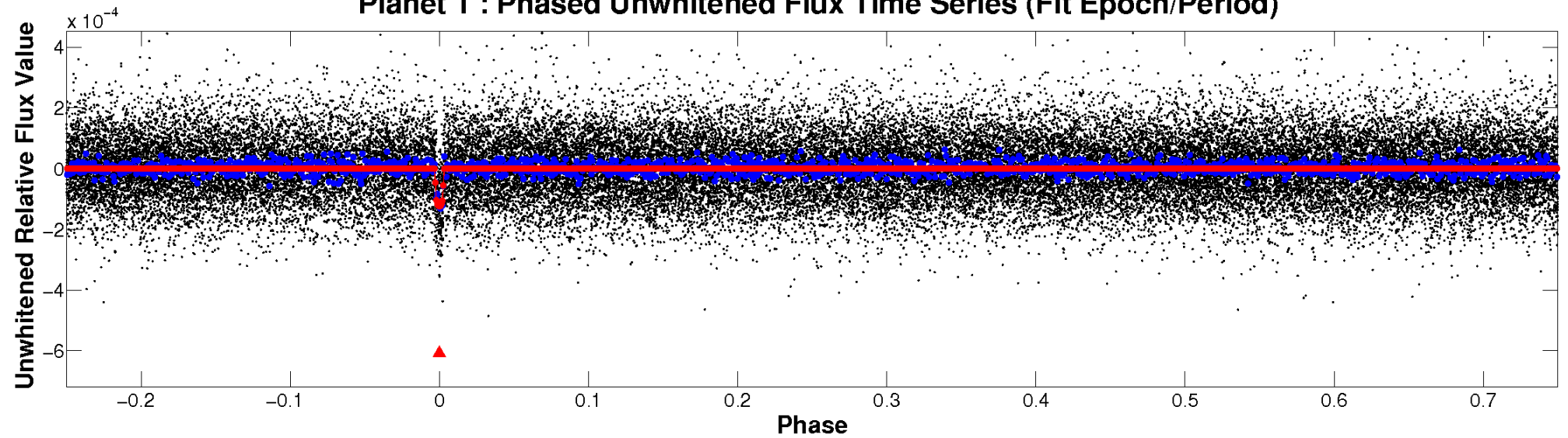
ALT Odd/Even

TCE 006364582-01

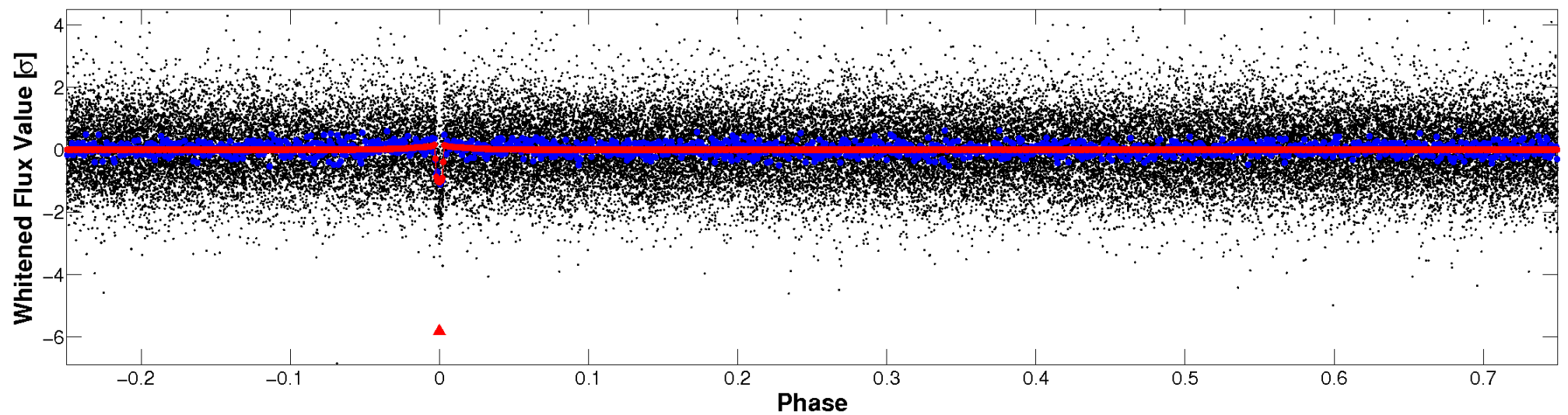


Non-Whitened Vs. Whitened Light Curve

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

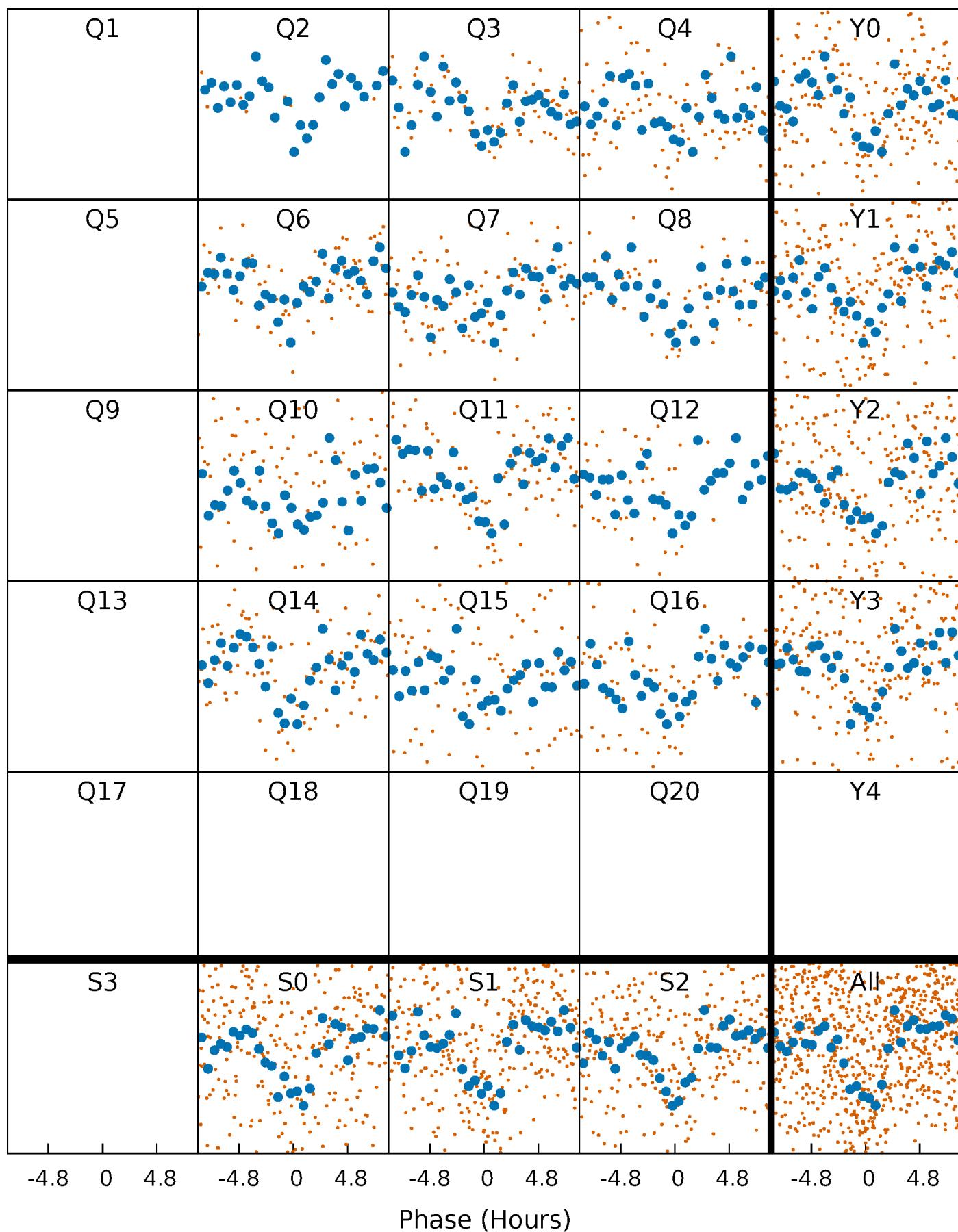


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



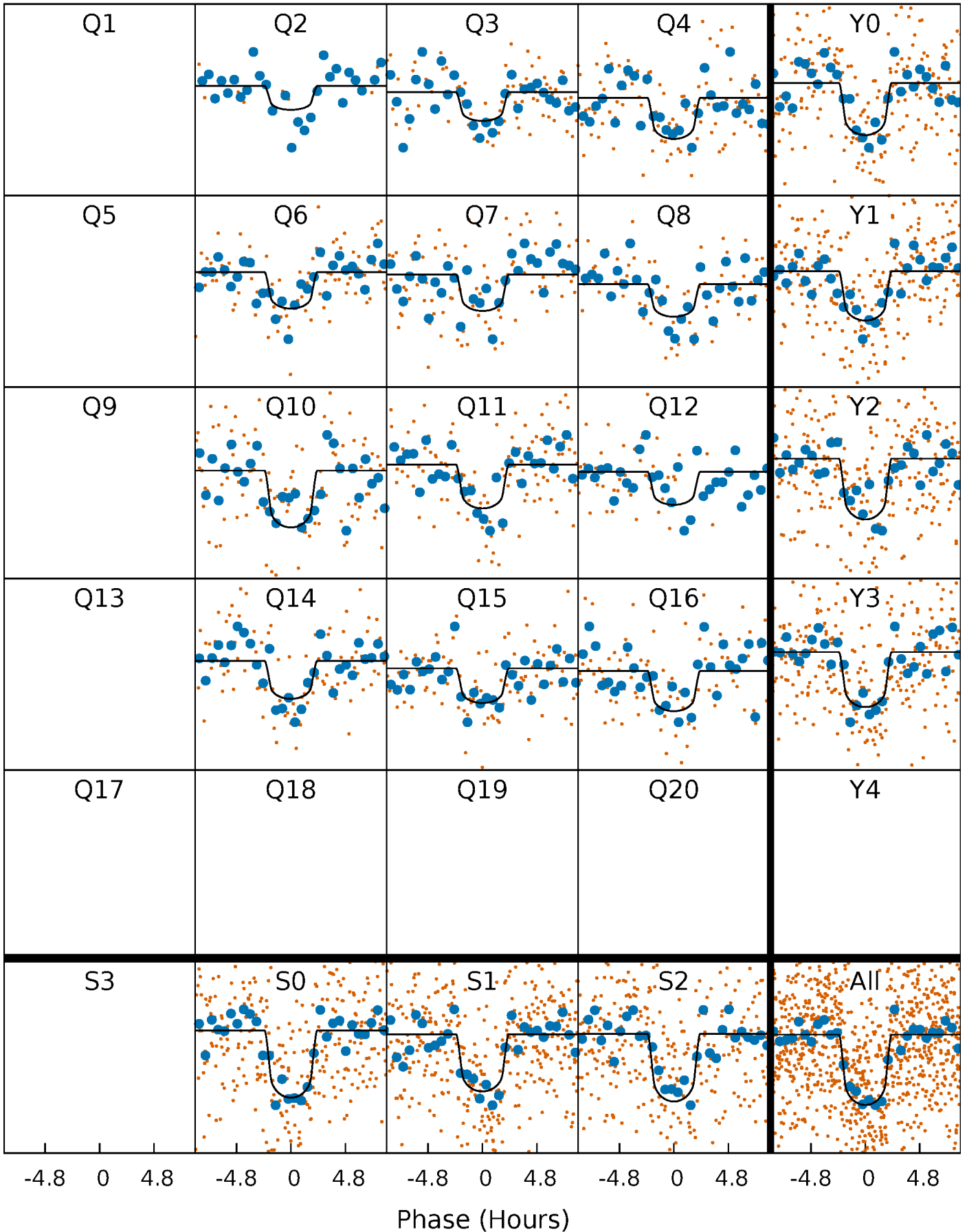
PDC Quarter-Phased Transit Curves

TCE 006364582-01 P= 30.860876 Days $T_0=138.315856$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006364582-01 P= 30.860876 Days $T_0=138.315856$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

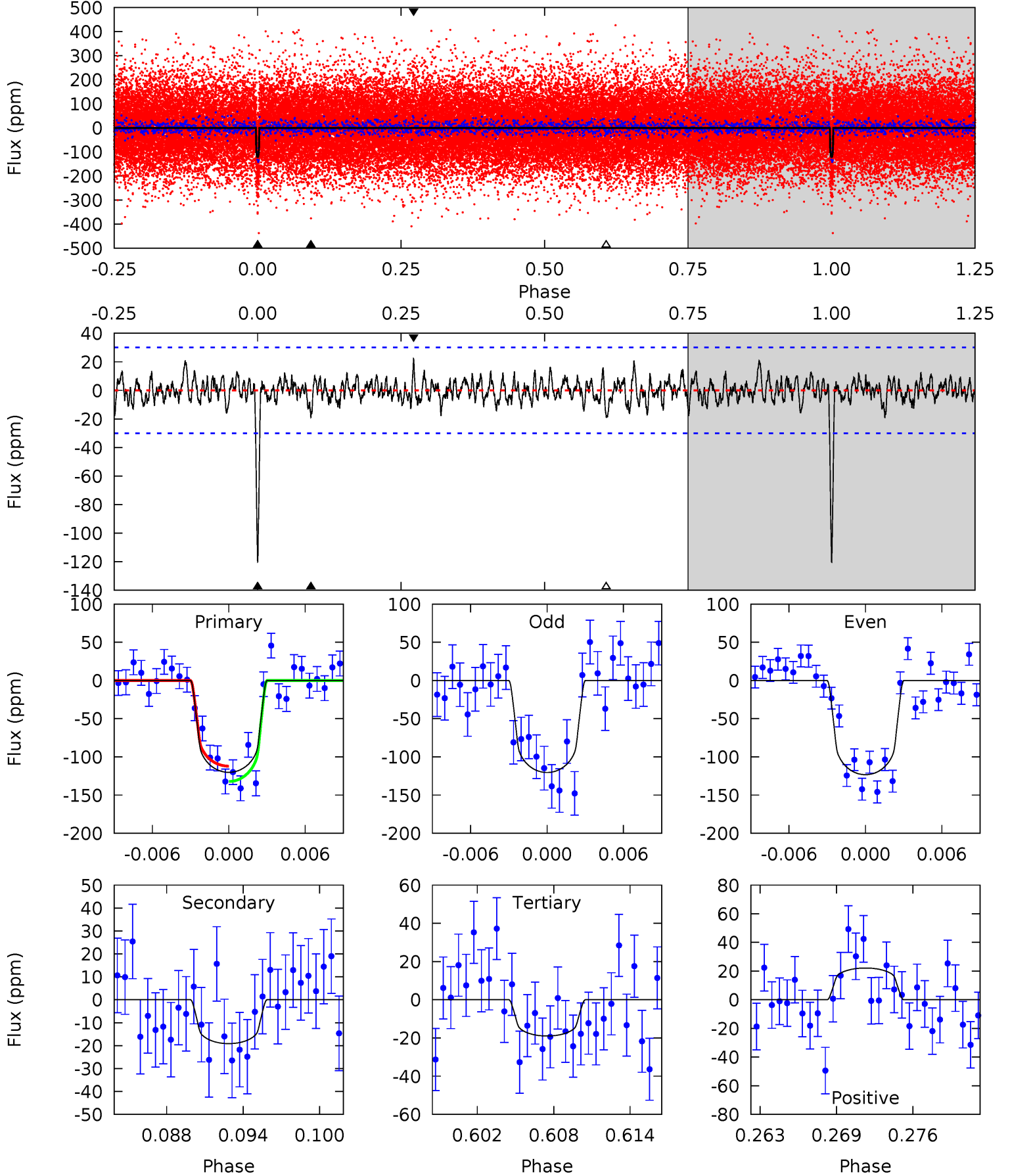
TCE 006364582-01 P= 30.860662 Days $T_0=138.323670$ (BKJD)



DV Model-Shift Uniqueness Test

006364582-01, $P = 30.860876$ Days, $E = 138.315856$ Days

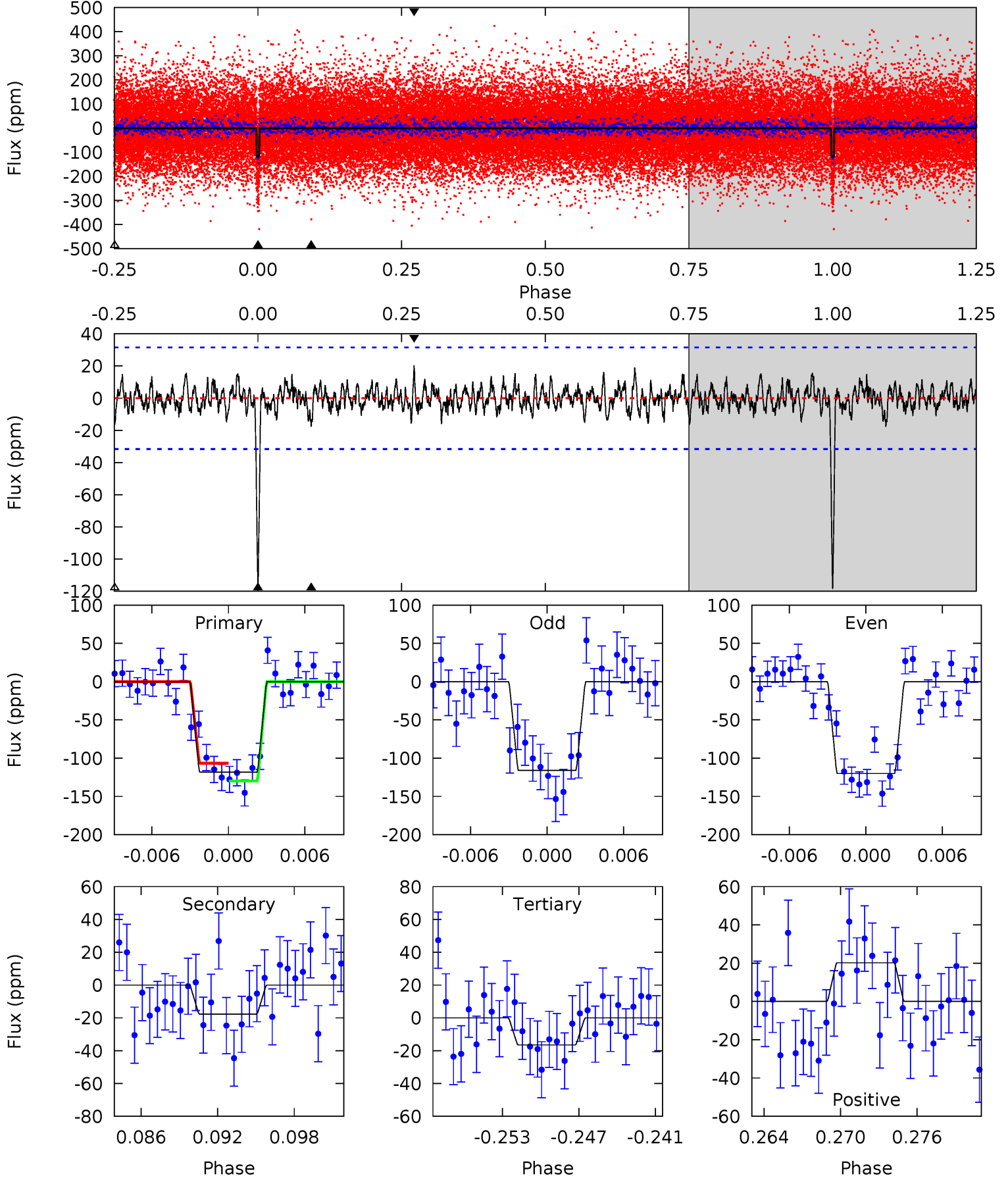
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	3.26	3.23	3.77	5.12	2.73	1.09	17.2	16.7	0.03	-0.51	0.24	0.94	0.16	1.71



Alt Model-Shift Uniqueness Test

006364582-01, P = 30.860662 Days, E = 138.323670 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	2.88	2.68	3.29	5.13	2.76	0.95	16.5	15.9	0.19	-0.41	0.32	1.00	0.15	1.90



Stellar Parameters For KIC 006364582

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5627^{+101}_{-112}	$4.552^{+0.026}_{-0.104}$	$-0.160^{+0.150}_{-0.150}$	$0.833^{+0.105}_{-0.045}$	$0.902^{+0.045}_{-0.071}$	$2.200^{+0.282}_{-0.667}$
	+2%/-2%	+1%/-2%	+94%/-94%	+13%/-5%	+5%/-8%	+13%/-30%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006364582-01 / KOI 3456.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 6	$1.11^{+0.48}_{-0.44}$	742^{+27}_{-19}	3771^{+774}_{-425}	287^{+545}_{-154}
Alt.	-18 ± 6	$1.04^{+0.51}_{-0.46}$	743^{+27}_{-21}	3812^{+937}_{-499}	296^{+729}_{-170}

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 $A_{obs} \gg 1.0$

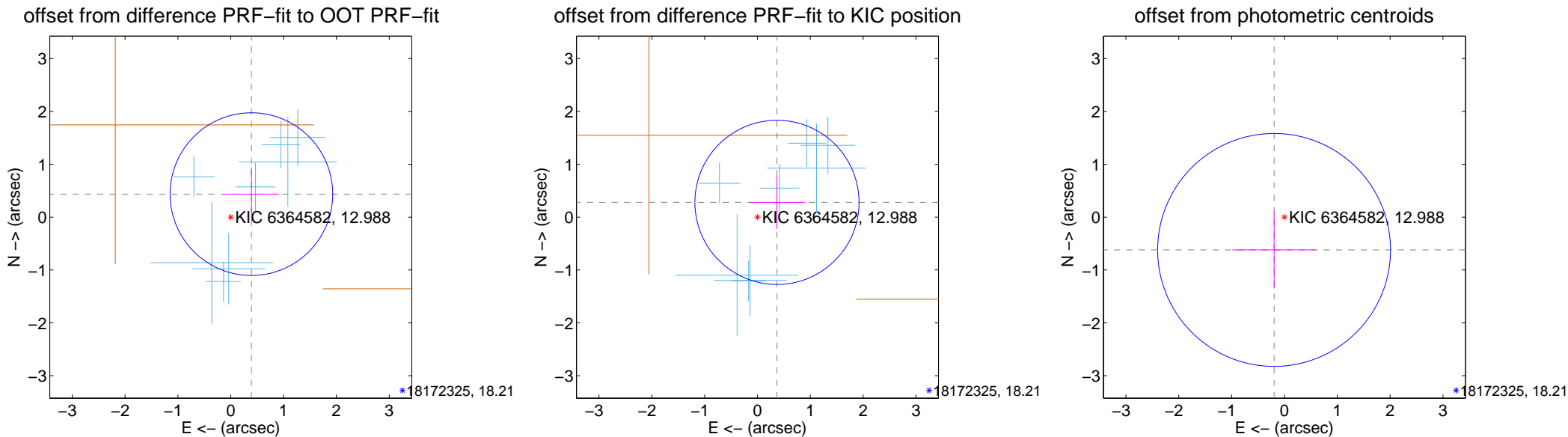
DV Centroid Data

Supplemental centroid analysis for 006364582-01. Kepler magnitude: 12.99. Transit SNR 14.54

There are 8 quarters with good PRF difference image offsets

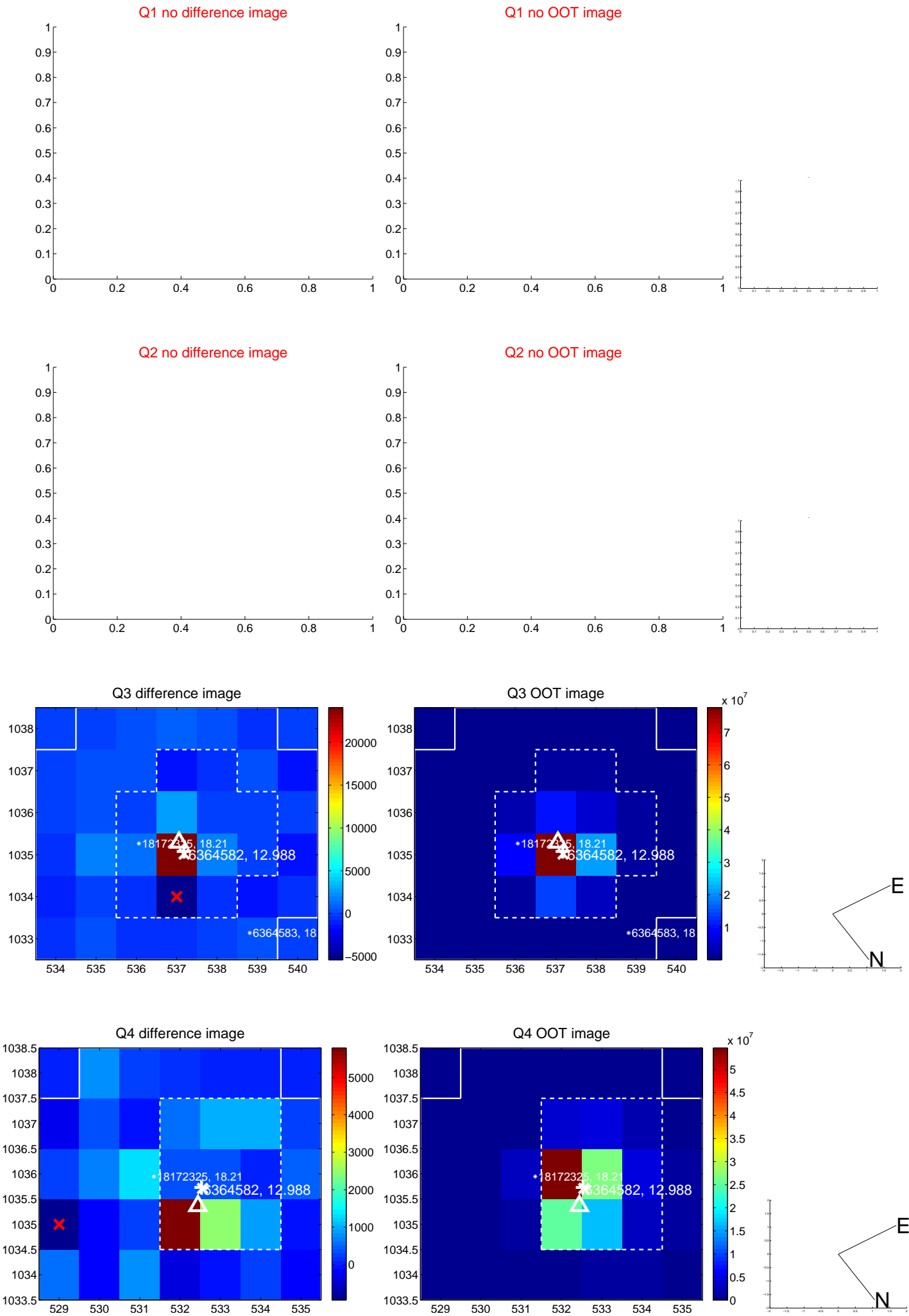
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.585 ± 0.513	1.14	-0.391 ± 0.527	0.435 ± 0.502
PRF-fit source offset from KIC position	0.463 ± 0.518	0.89	-0.369 ± 0.527	0.279 ± 0.502
photometric centroid source offset	0.65 ± 0.73	0.89	0.20 ± 0.79	-0.62 ± 0.73

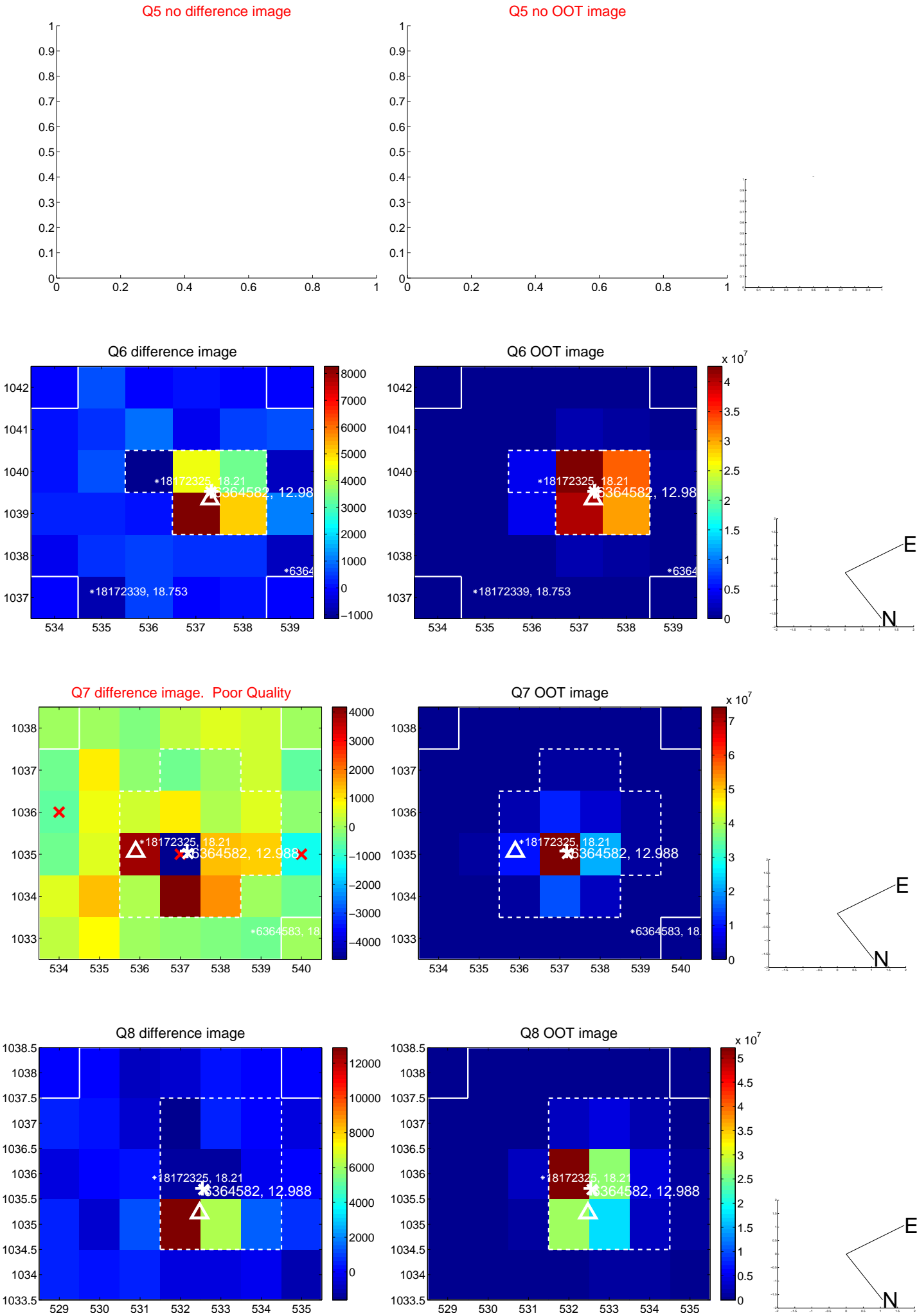


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

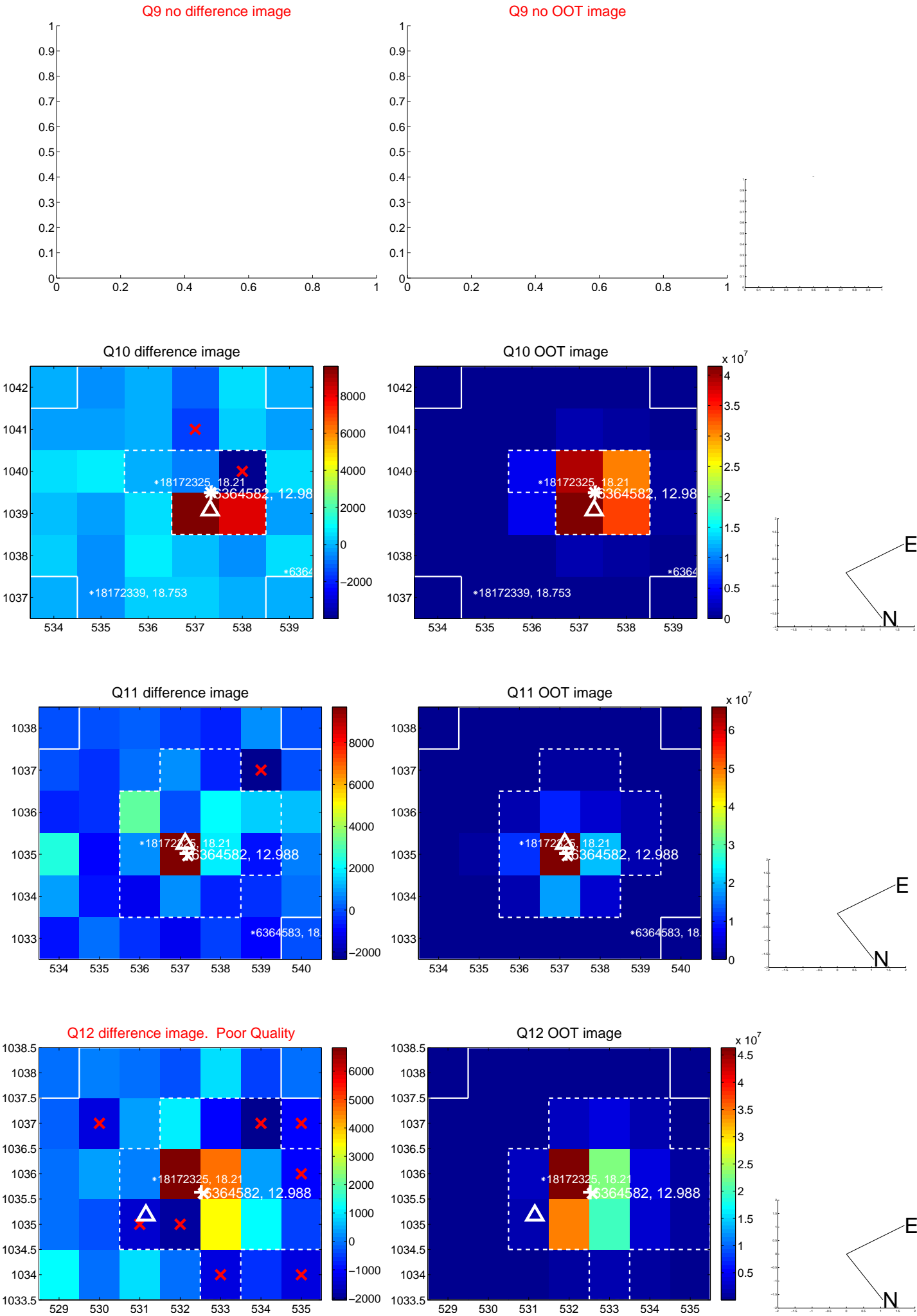
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



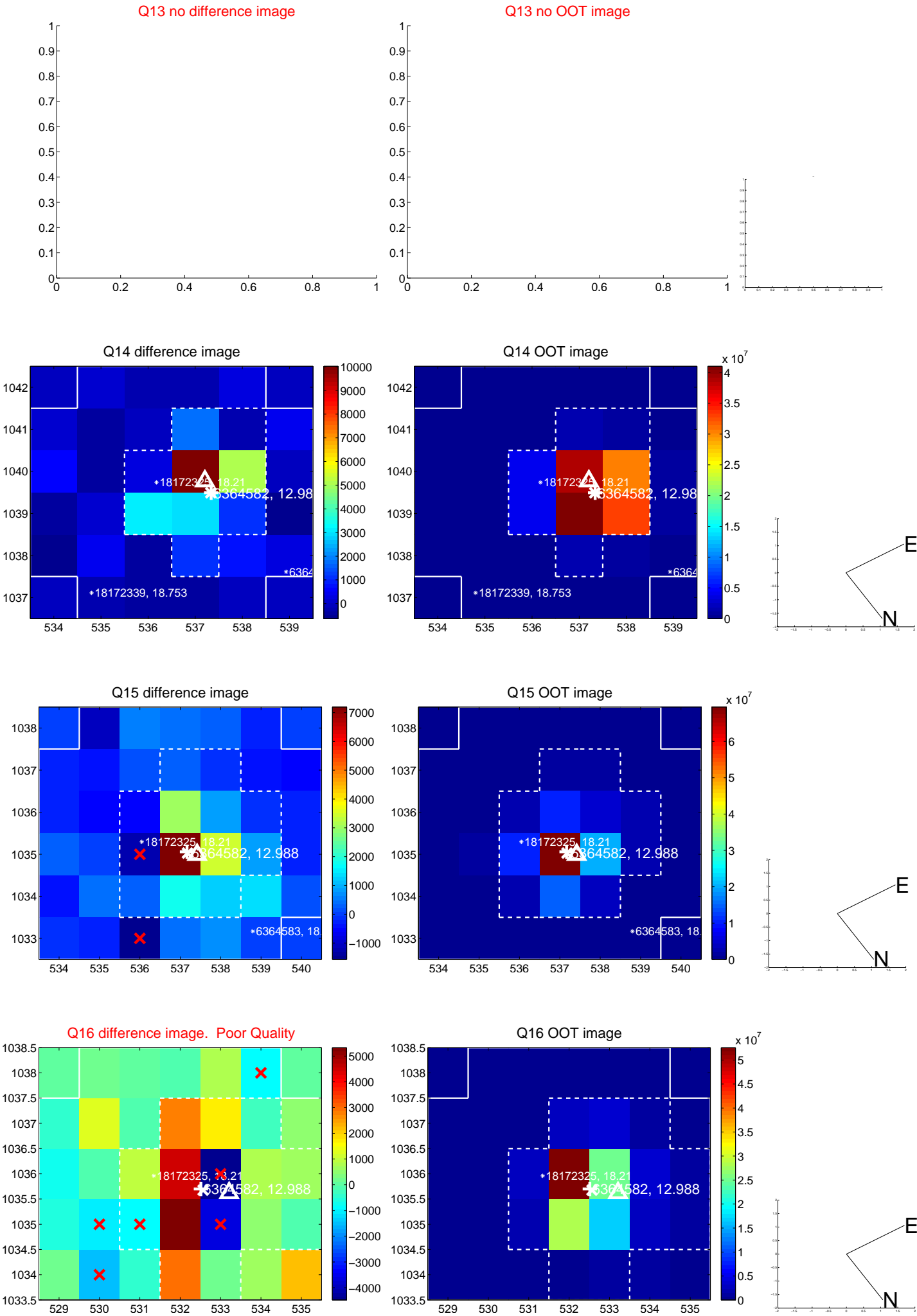
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



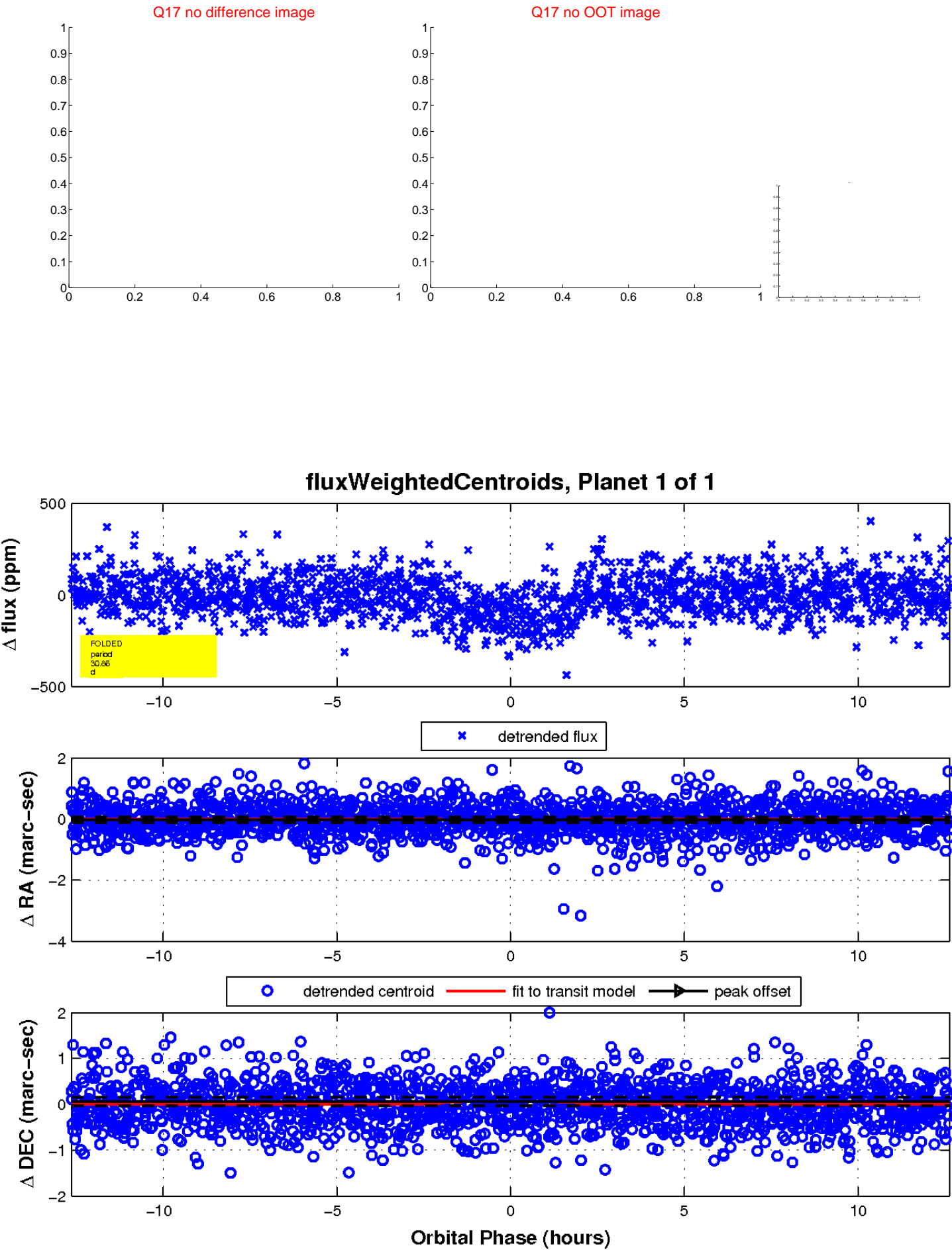
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

