

KIC 006020929

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})
006020929-01	OBS	No	4.015065	133.242631	38.8	31.931	8.4	11.7	1.01	6038	0.95	491.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006020929-01	OBS	FP	0.00	1	0	1	0	SWEET_NTL —LPP_DV —CENT_RESOLVED_OFFSET

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

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

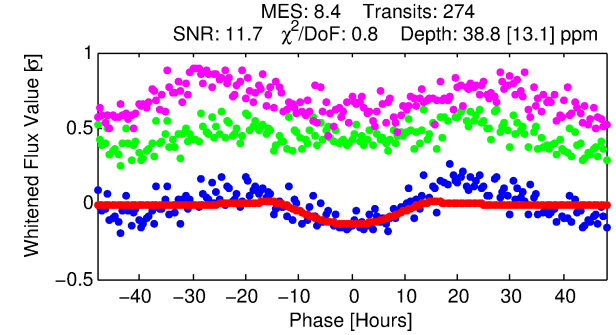
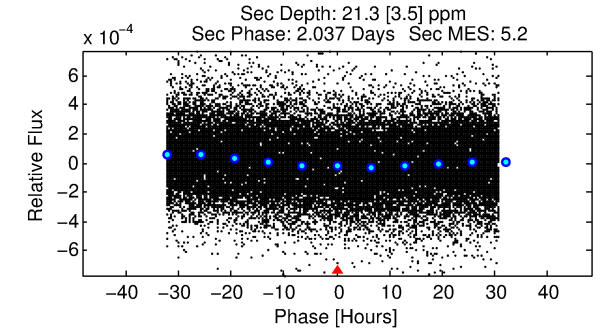
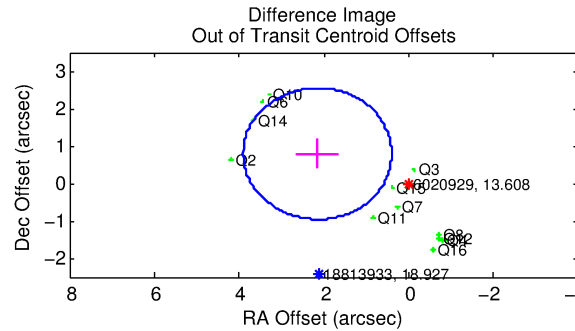
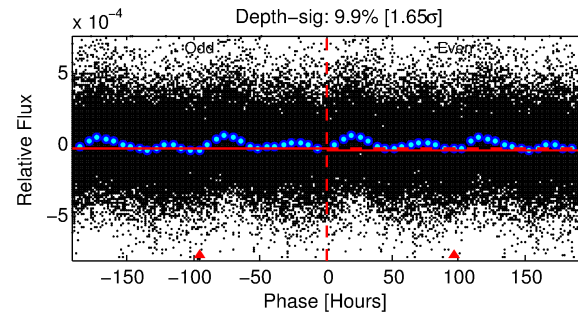
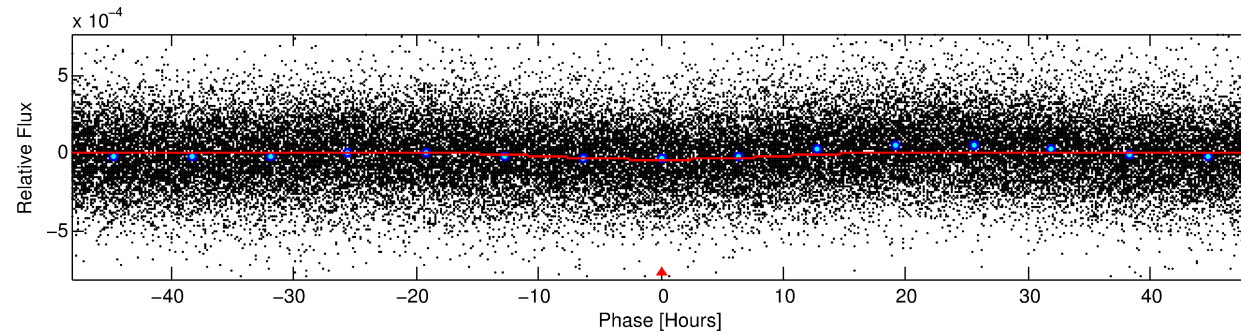
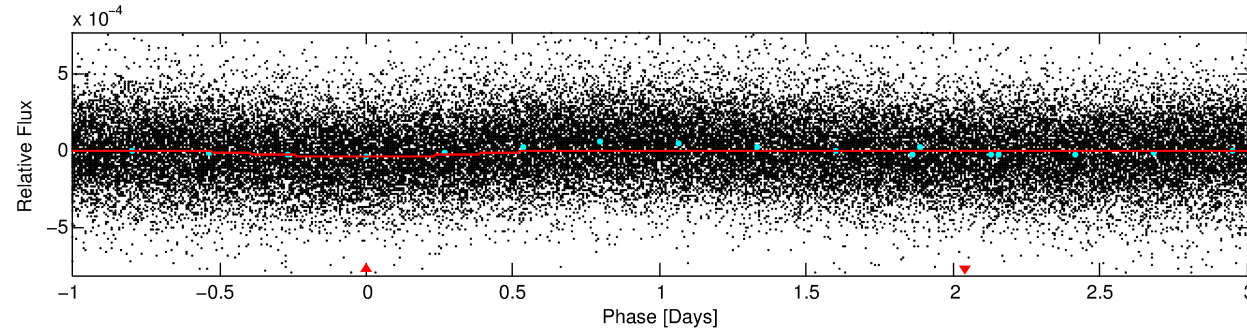
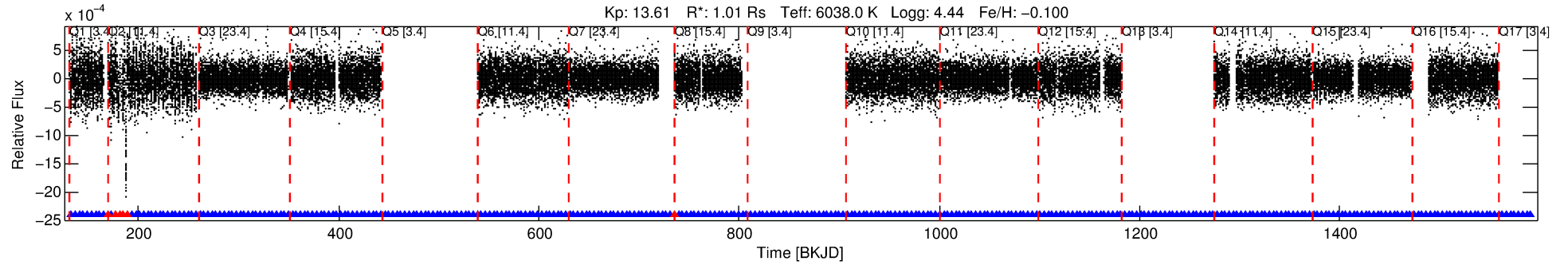
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006020929-01

No Significant Match Found

DV One-Page Summary

KIC: 6020929 Candidate: 1 of 1 Period: 4.015 d



DV Fit Results:

Period = 4.01506 [0.00030] d
Epoch = 133.2426 [0.0625] BKJD
Rp/R* = 0.0086 [0.0024]
a/R* = 1.01 [0.00]
b = 0.99 [0.01]
Seff = 491.66 [196.24]
Teq = 1201 [120] K
Rp = 0.95 [0.39] Re
a = 0.0498 [0.0129] AU
Ag = 32.25 [22.23] [1.41σ]
Teffp = 4424 [649] K [4.88σ]

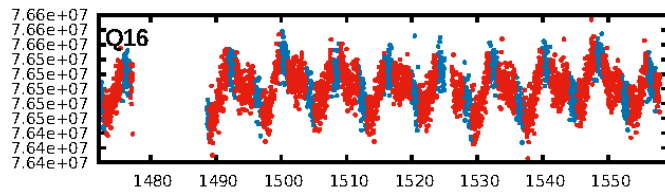
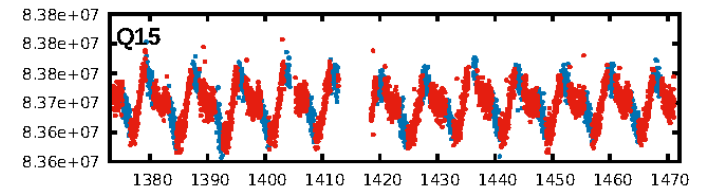
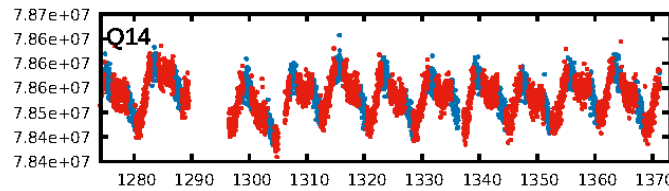
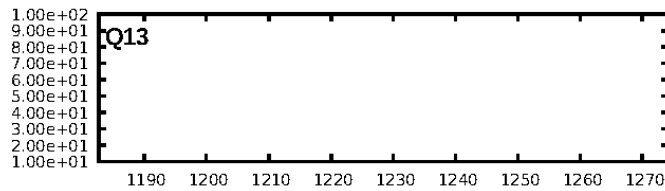
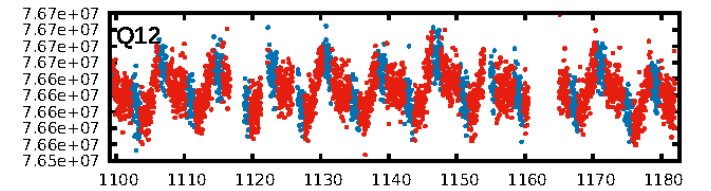
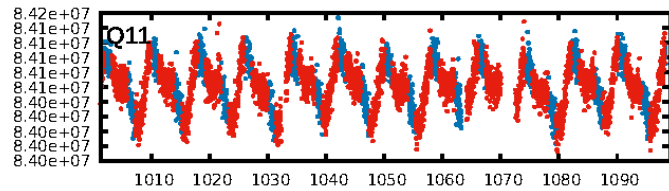
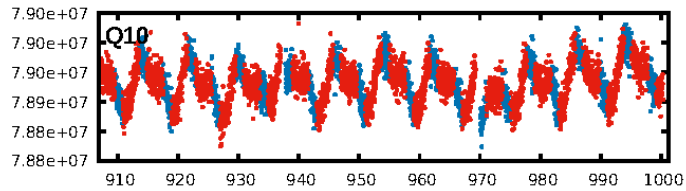
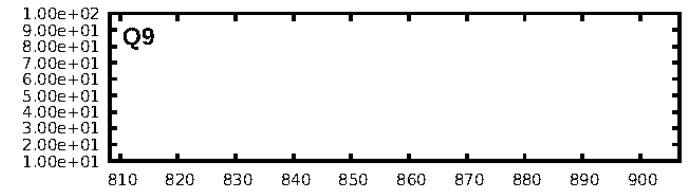
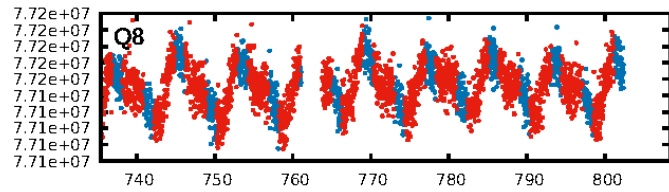
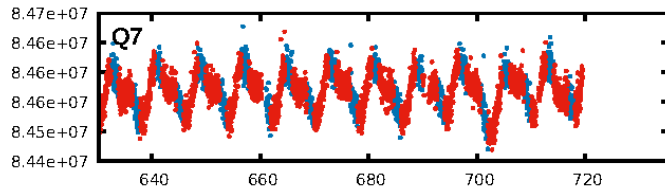
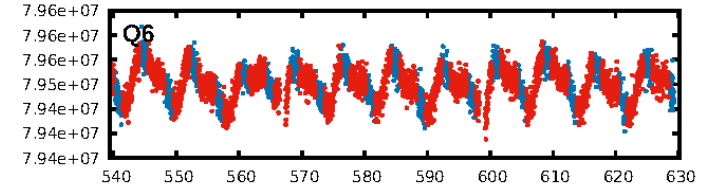
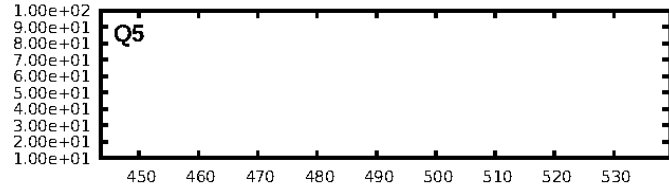
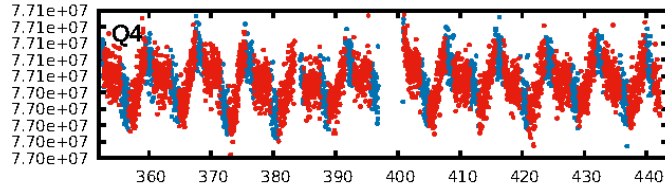
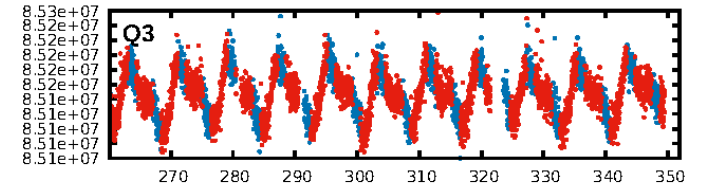
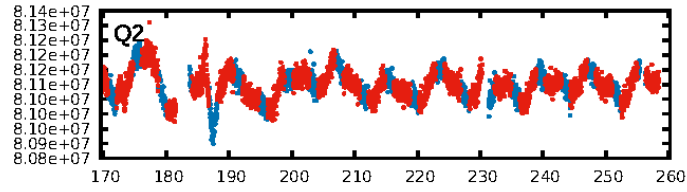
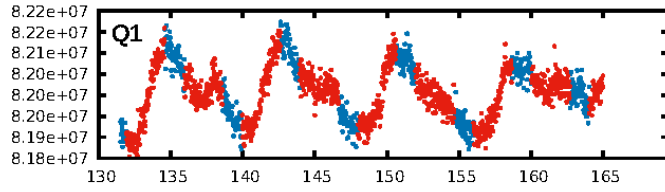
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [259/265]
GhostDiagnostic-chr: -1.217
Centroid-sig: 0.0%
Centroid-so: 3.951 arcsec [13.11σ]
OotOffset-rm: 2.291 arcsec [3.92σ]
KicOffset-rm: 6.965 arcsec [14.02σ]
OotOffset-st: 4/4/4/0 [12]
KicOffset-st: 4/4/4/0 [12]
DiffImageQuality-fgm: 0.00 [0/12]
DiffImageOverlap-fno: 1.00 [13/13]

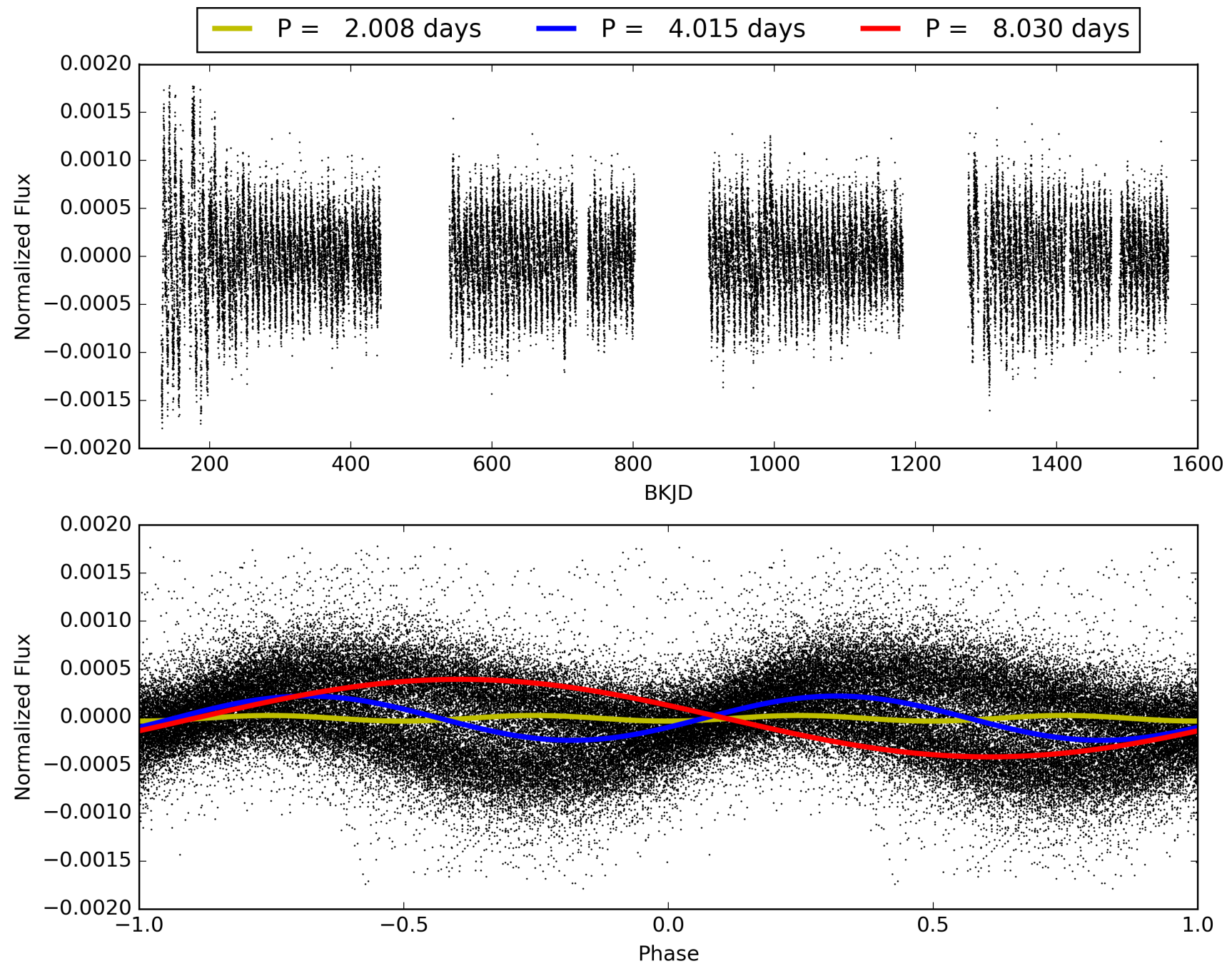
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:04:19 Z

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

TCE 006020929-01, PDC Light Curves

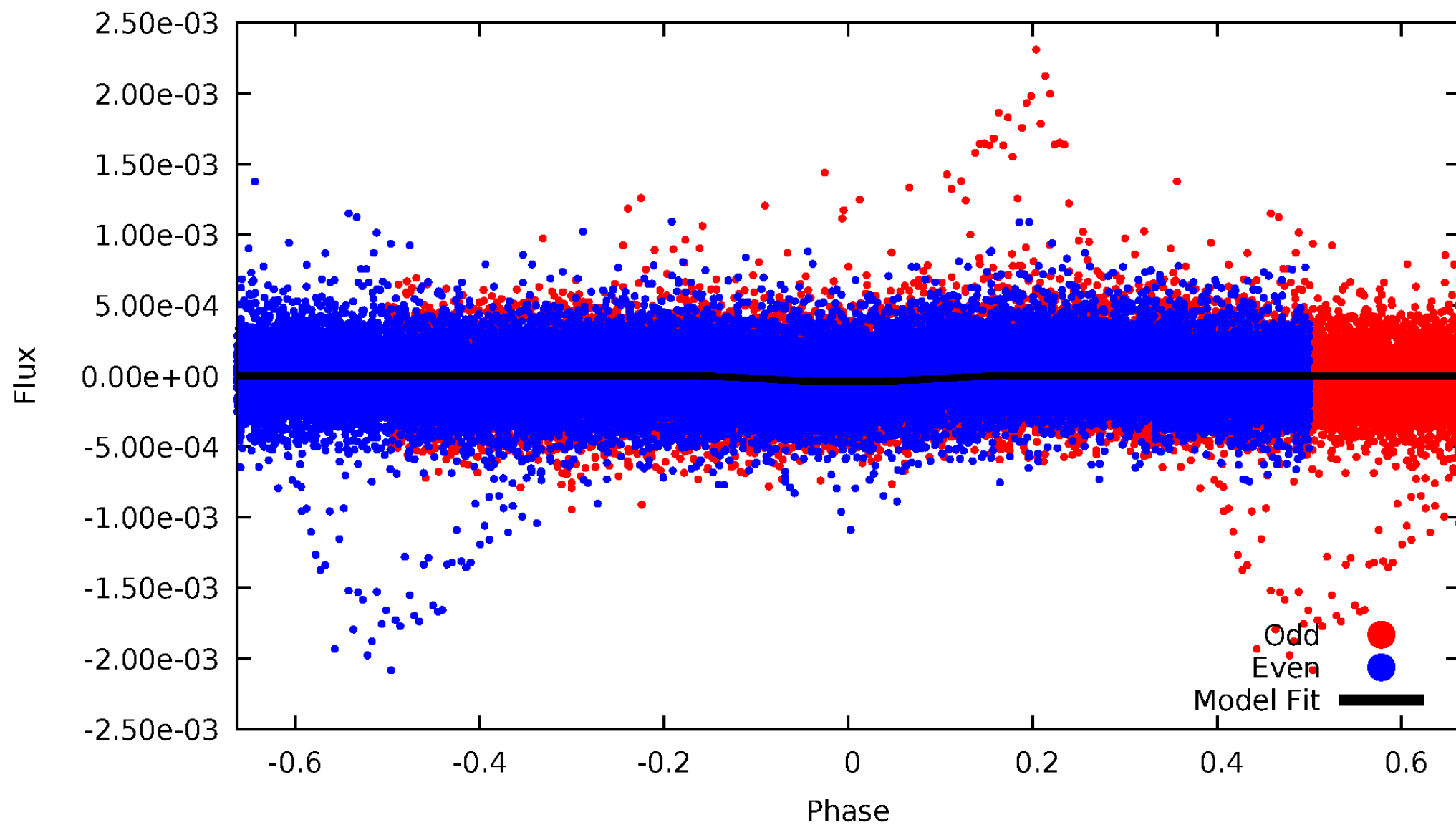


TCE 006020929-01



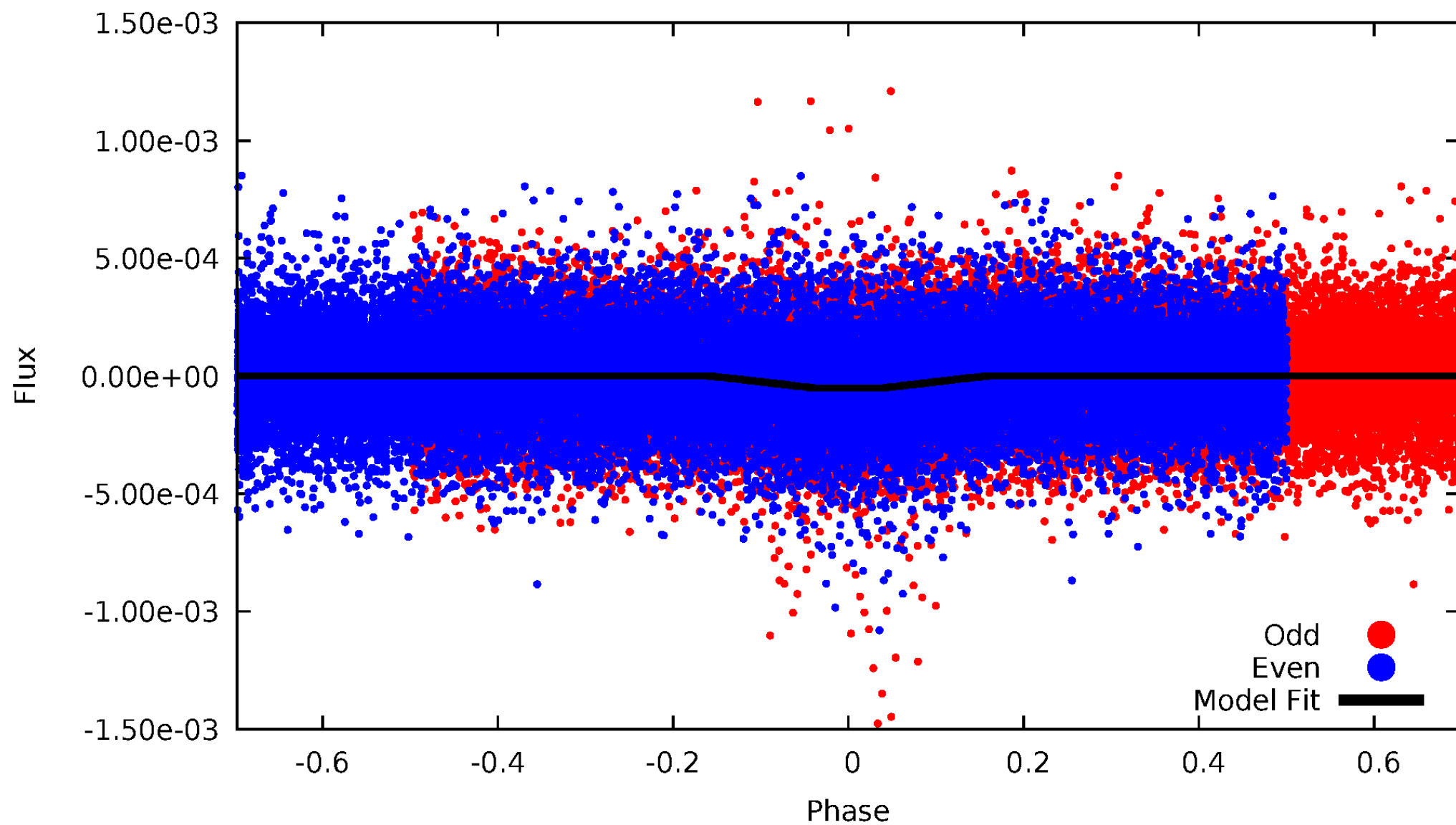
DV Odd/Even

TCE 006020929-01

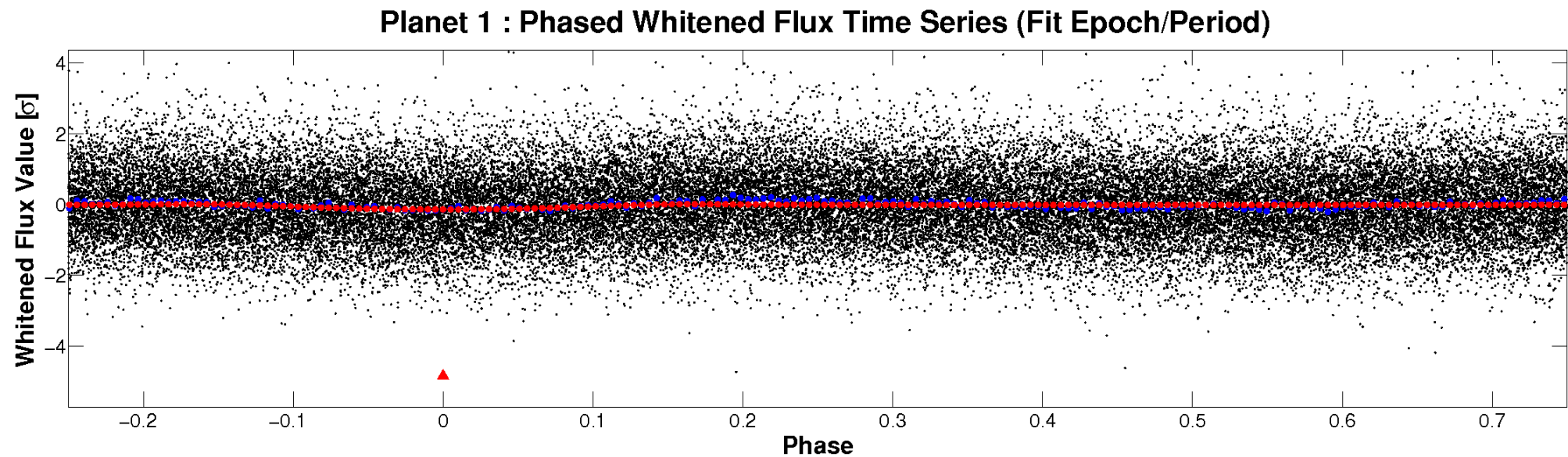
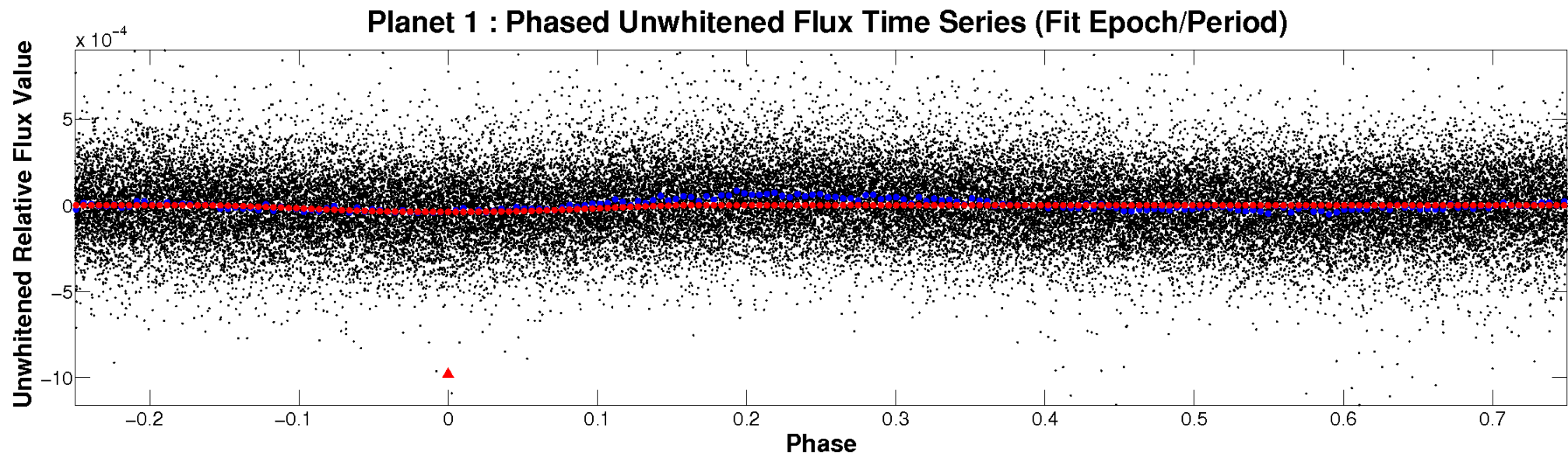


ALT Odd/Even

TCE 006020929-01

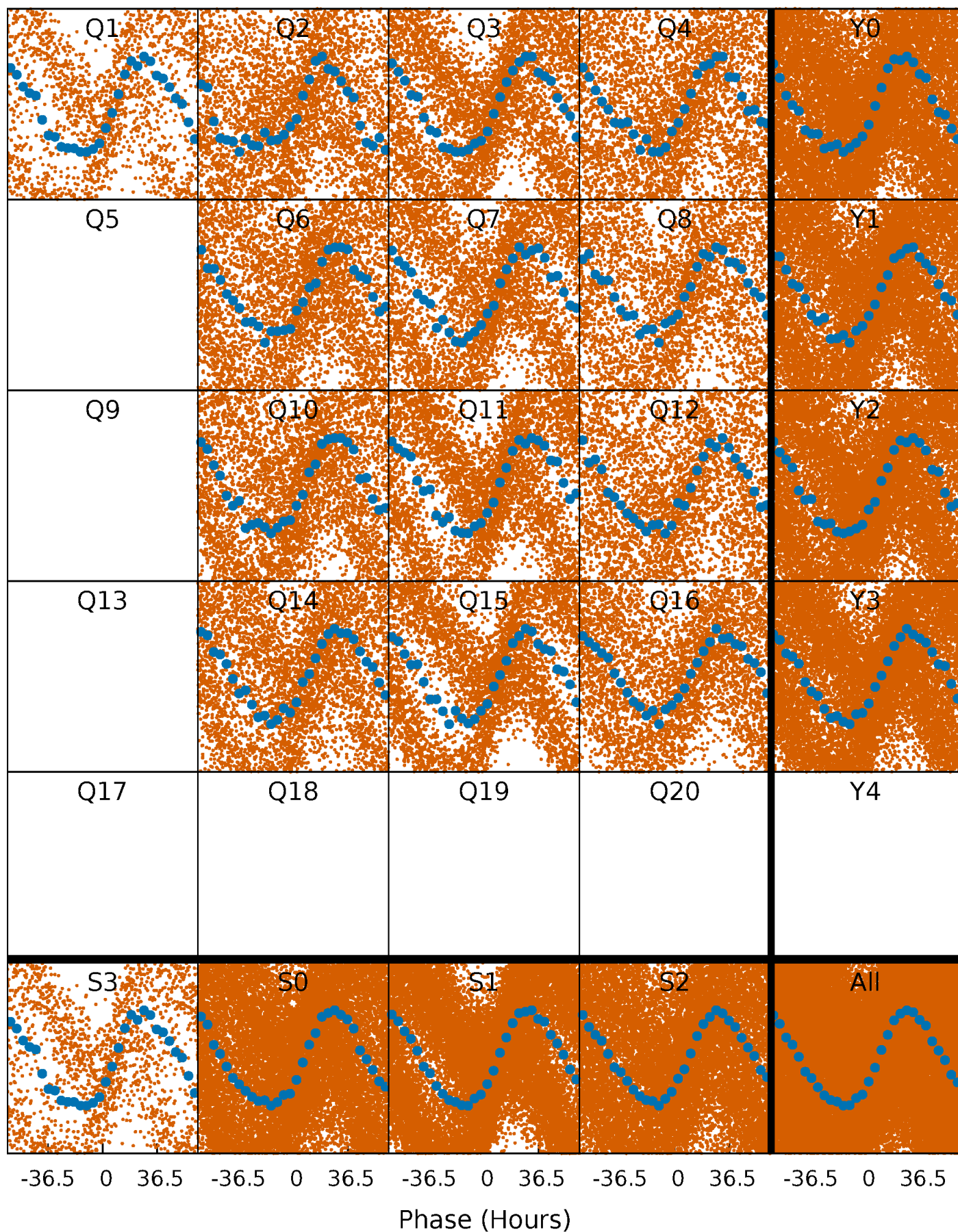


Non-Whitened Vs. Whitened Light Curve



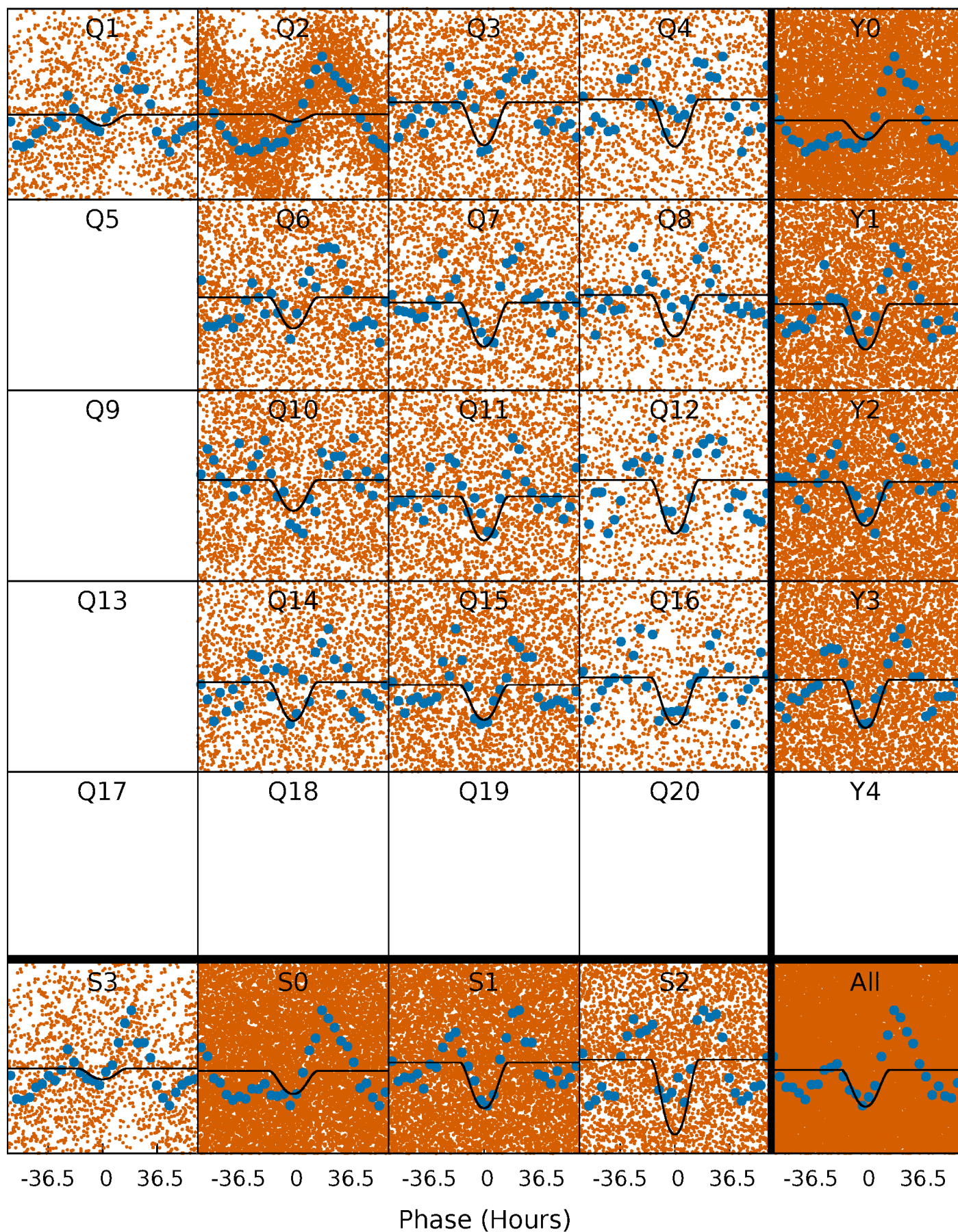
PDC Quarter-Phased Transit Curves

TCE 006020929-01 P= 4.015065 Days $T_0=133.242631$ (BKJD)



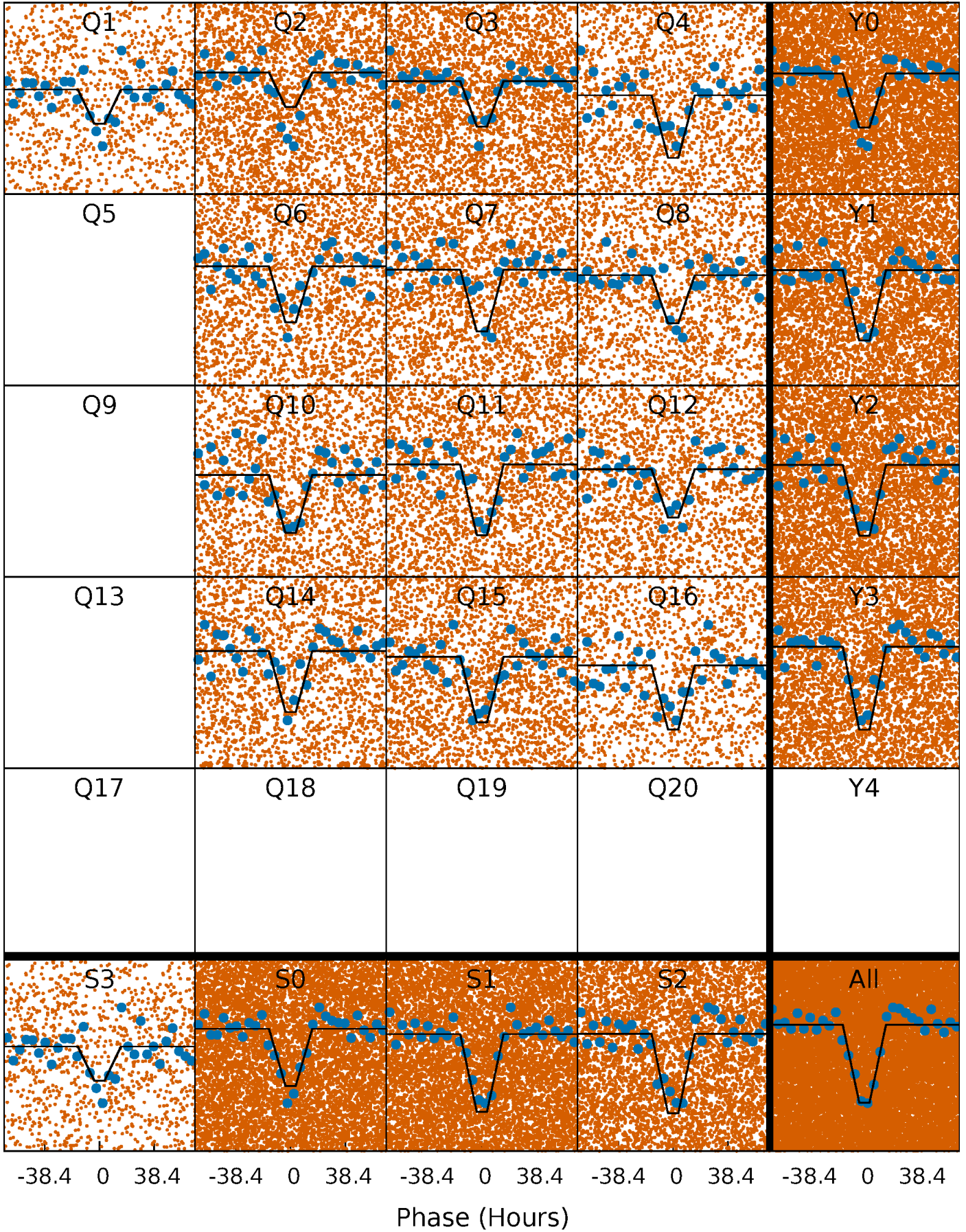
DV Quarter-Phased Transit Curves

TCE 006020929-01 P= 4.015065 Days $T_0=133.242631$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

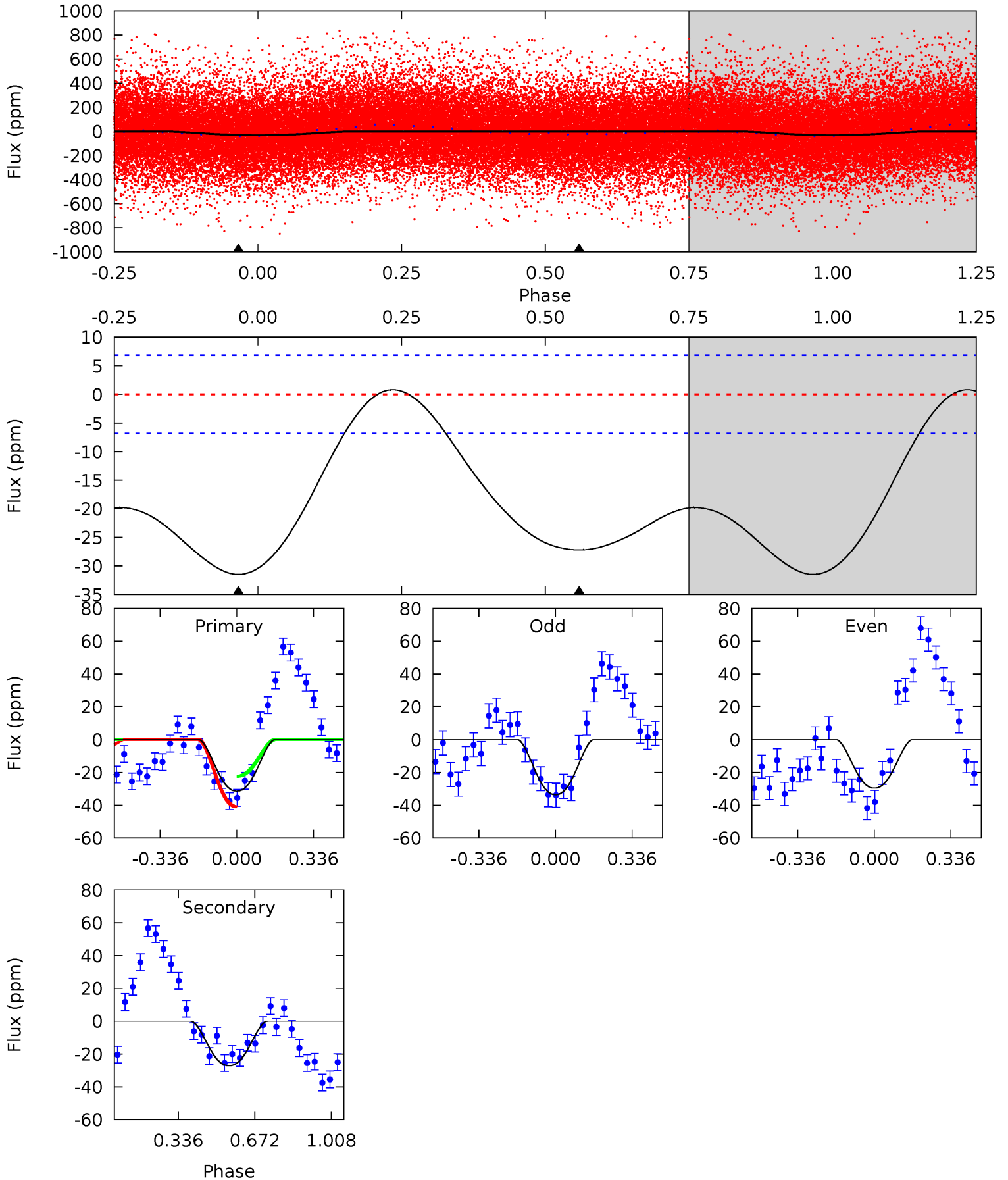
TCE 006020929-01 P= 4.014978 Days $T_0=133.313245$ (BKJD)



DV Model-Shift Uniqueness Test

006020929-01, P = 4.015065 Days, E = 129.227566 Days

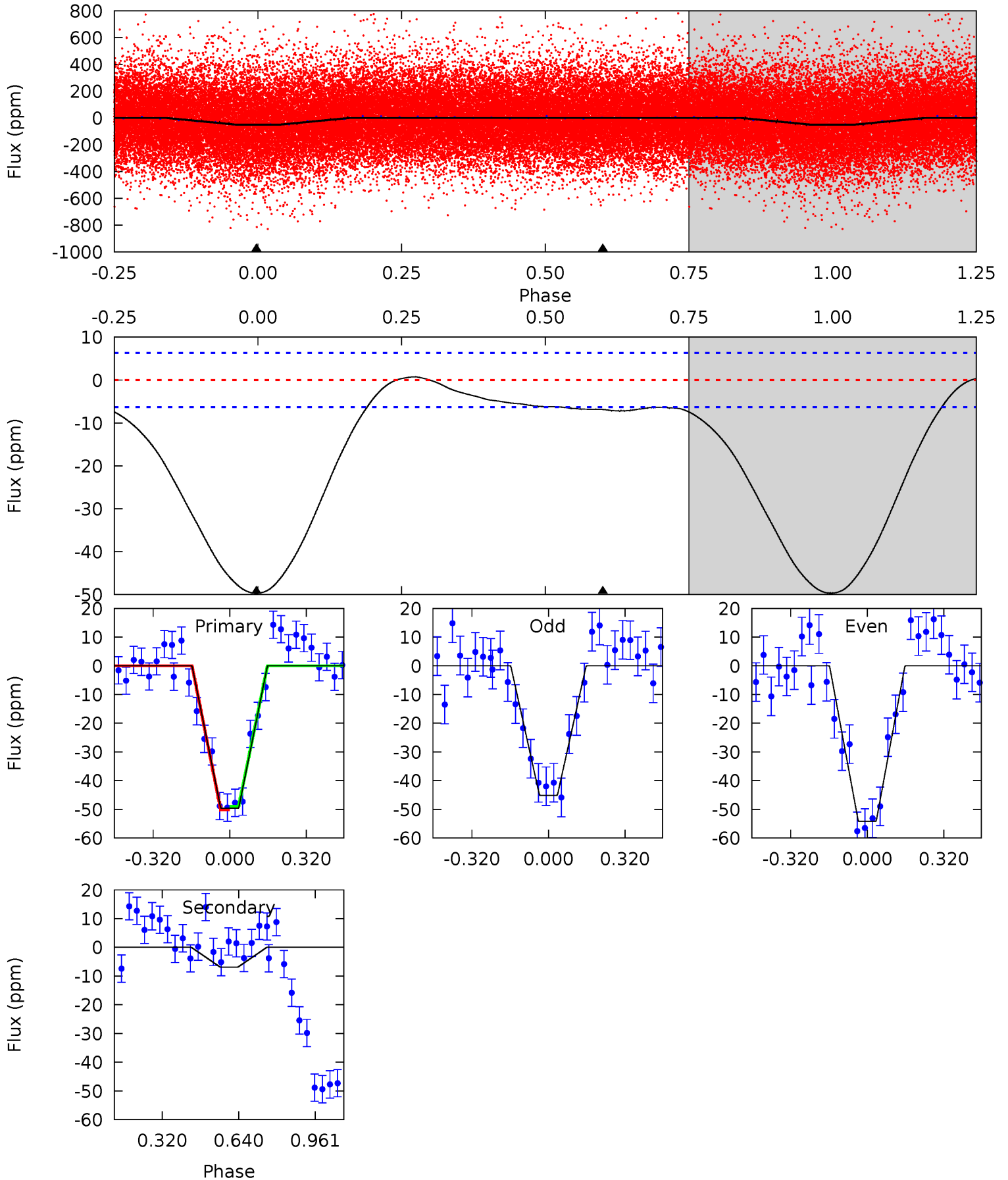
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	17.1	0	0	4.30	0.96	1.09	19.8	19.8	17.1	17.1	1.26	4.73	0.03	6.01



Alt Model-Shift Uniqueness Test

006020929-01, P = 4.014978 Days, E = 129.298267 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.9	4.69	0	0	4.31	0.99	0.78	33.9	33.9	4.69	4.69	3.08	1.36	0.01	0.44



Stellar Parameters For KIC 006020929

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6038^{+162}_{-180}	$4.437^{+0.070}_{-0.210}$	$-0.100^{+0.250}_{-0.350}$	$1.012^{+0.308}_{-0.132}$	$1.020^{+0.139}_{-0.126}$	$1.385^{+0.498}_{-0.704}$
	+3%/-3%	+2%/-5%	+250%/-350%	+30%/-13%	+14%/-12%	+36%/-51%
Source	PHO1	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 006020929-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 2	$0.99^{+0.29}_{-0.29}$	1708^{+130}_{-81}	4826^{+757}_{-457}	37^{+38}_{-15}
Alt.	-7 ± 1	$0.82^{+0.32}_{-0.27}$	1712^{+130}_{-88}	3941^{+654}_{-399}	13^{+17}_{-6}

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

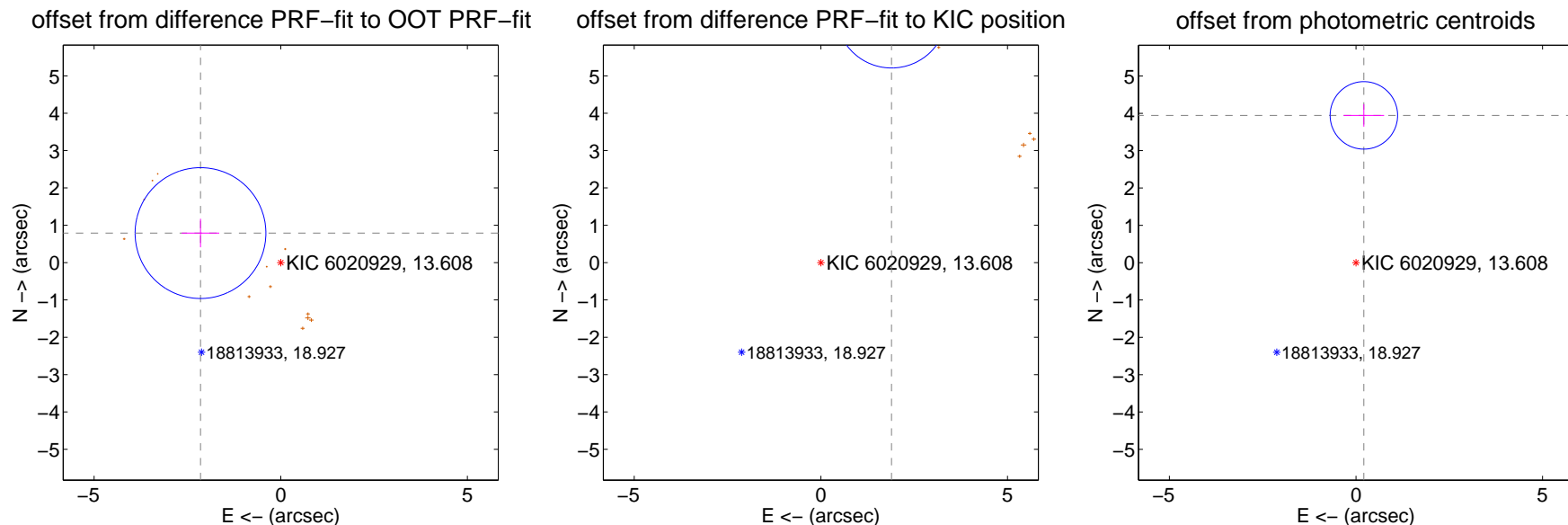
DV Centroid Data

Supplemental centroid analysis for 006020929-01. Kepler magnitude: 13.61. Transit SNR 11.68

There are 0 quarters with good PRF difference image offsets

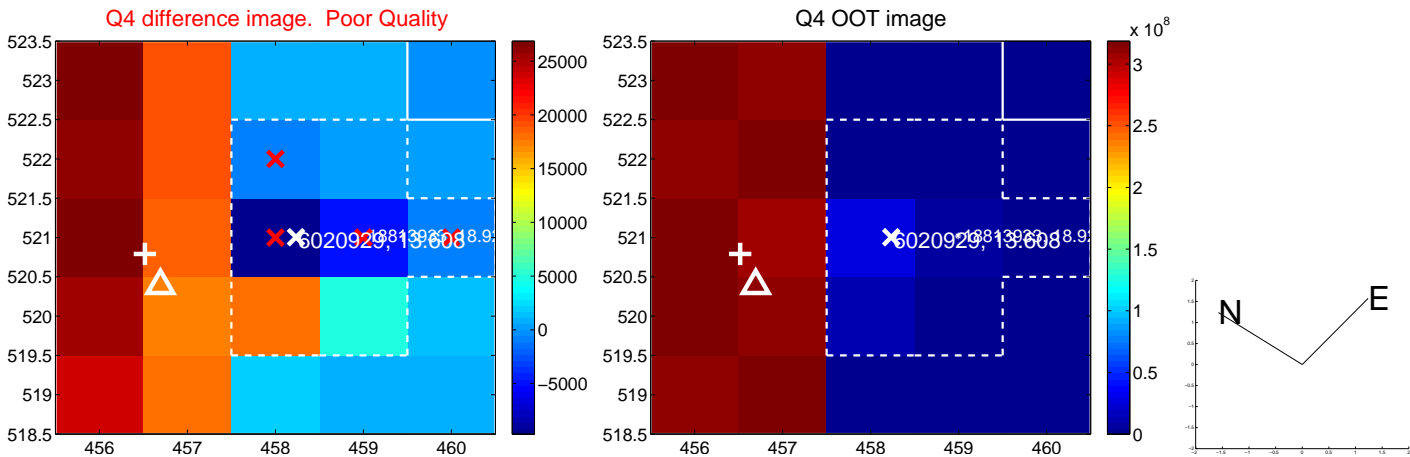
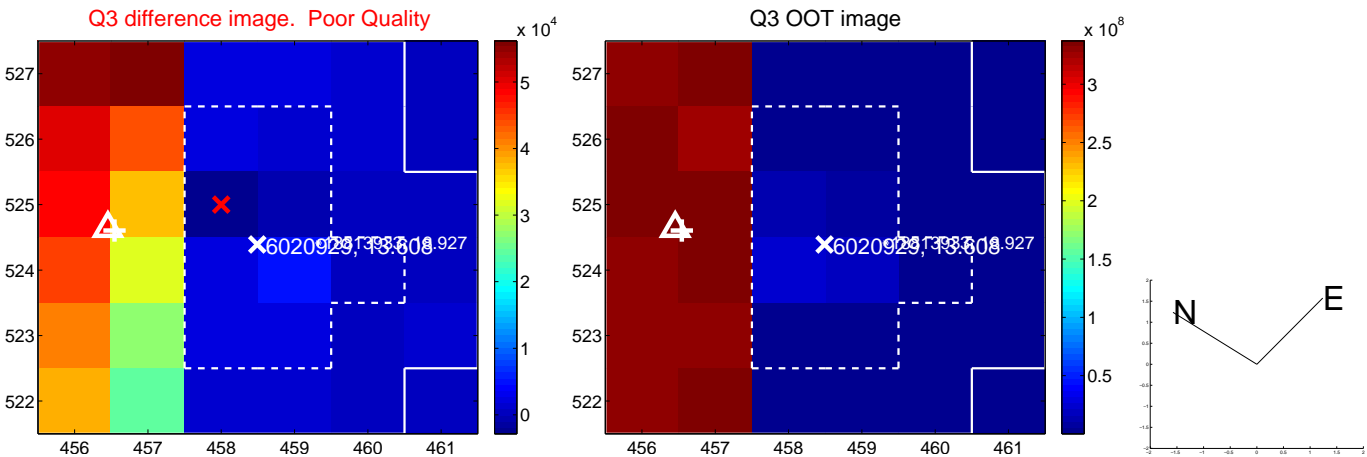
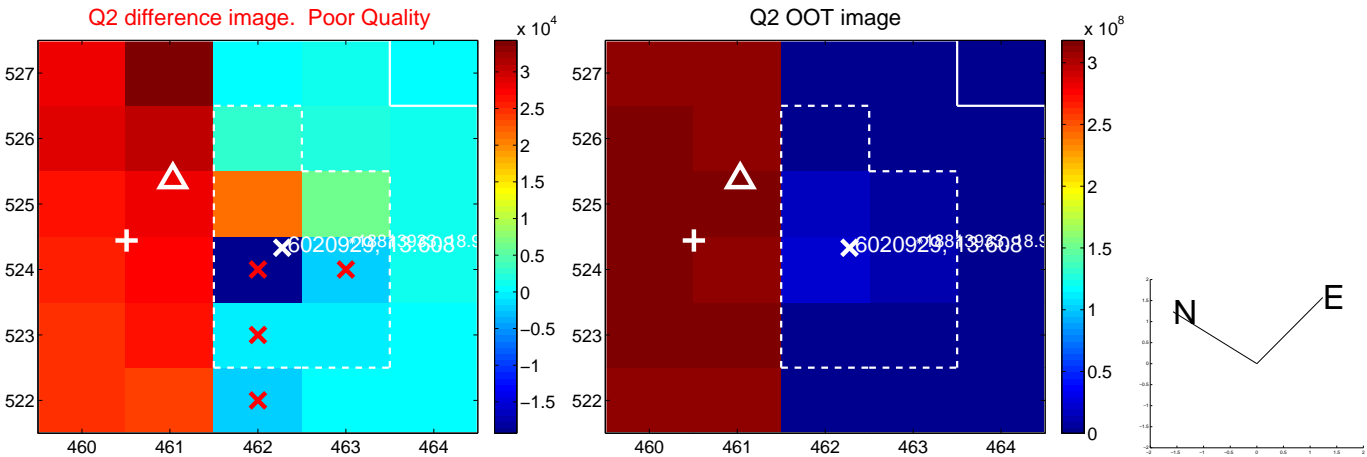
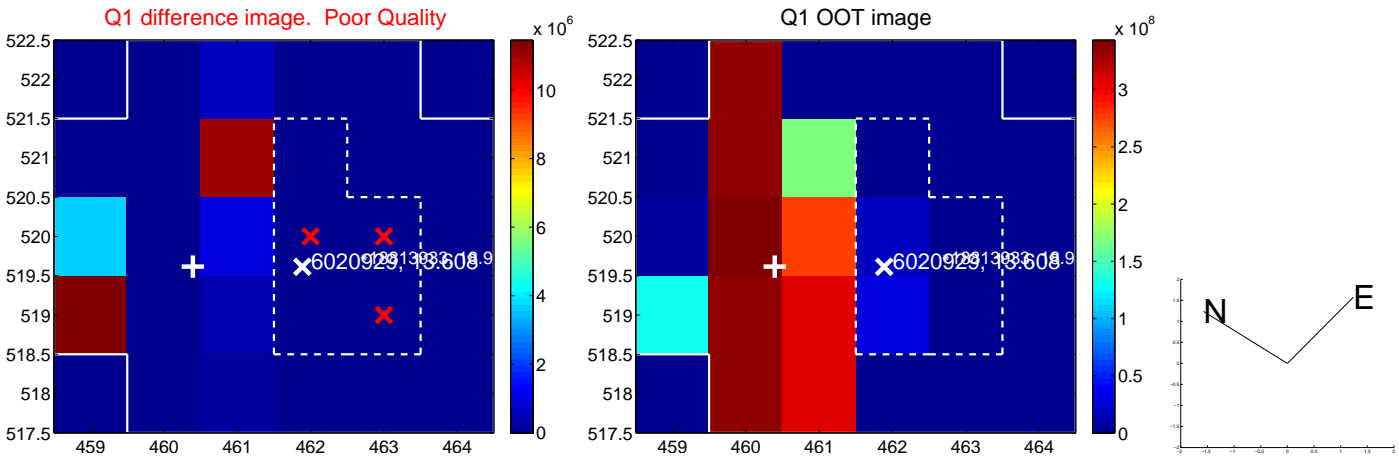
The OOT PRF centroid is offset from the target star catalog position by about 6.61 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.291 ± 0.584	3.92	2.150 ± 0.503	0.790 ± 0.382
PRF-fit source offset from KIC position	6.965 ± 0.497	14.02	-1.894 ± 0.641	6.702 ± 0.484
photometric centroid source offset	3.95 ± 0.30	13.11	-0.21 ± 0.54	3.95 ± 0.30

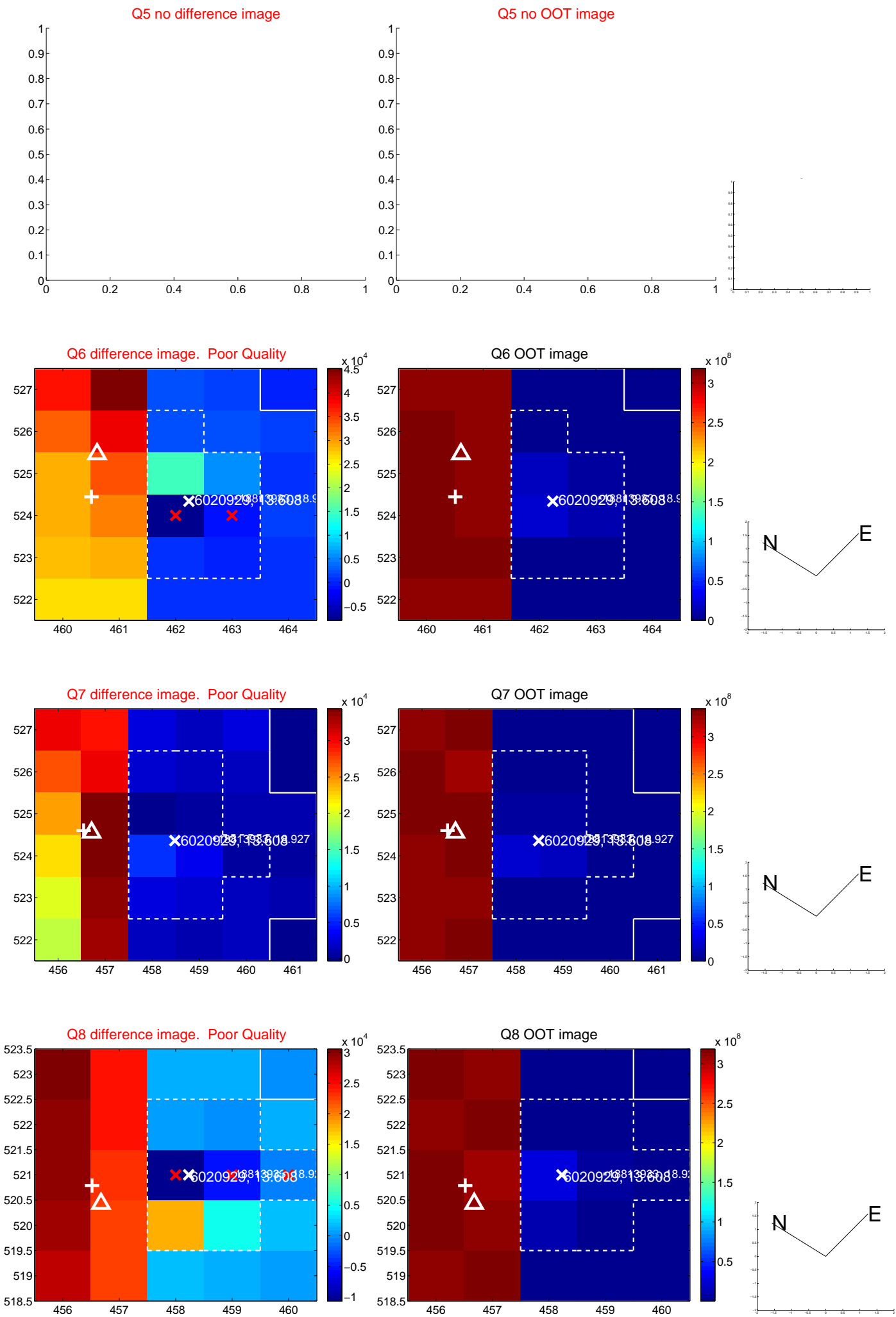


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

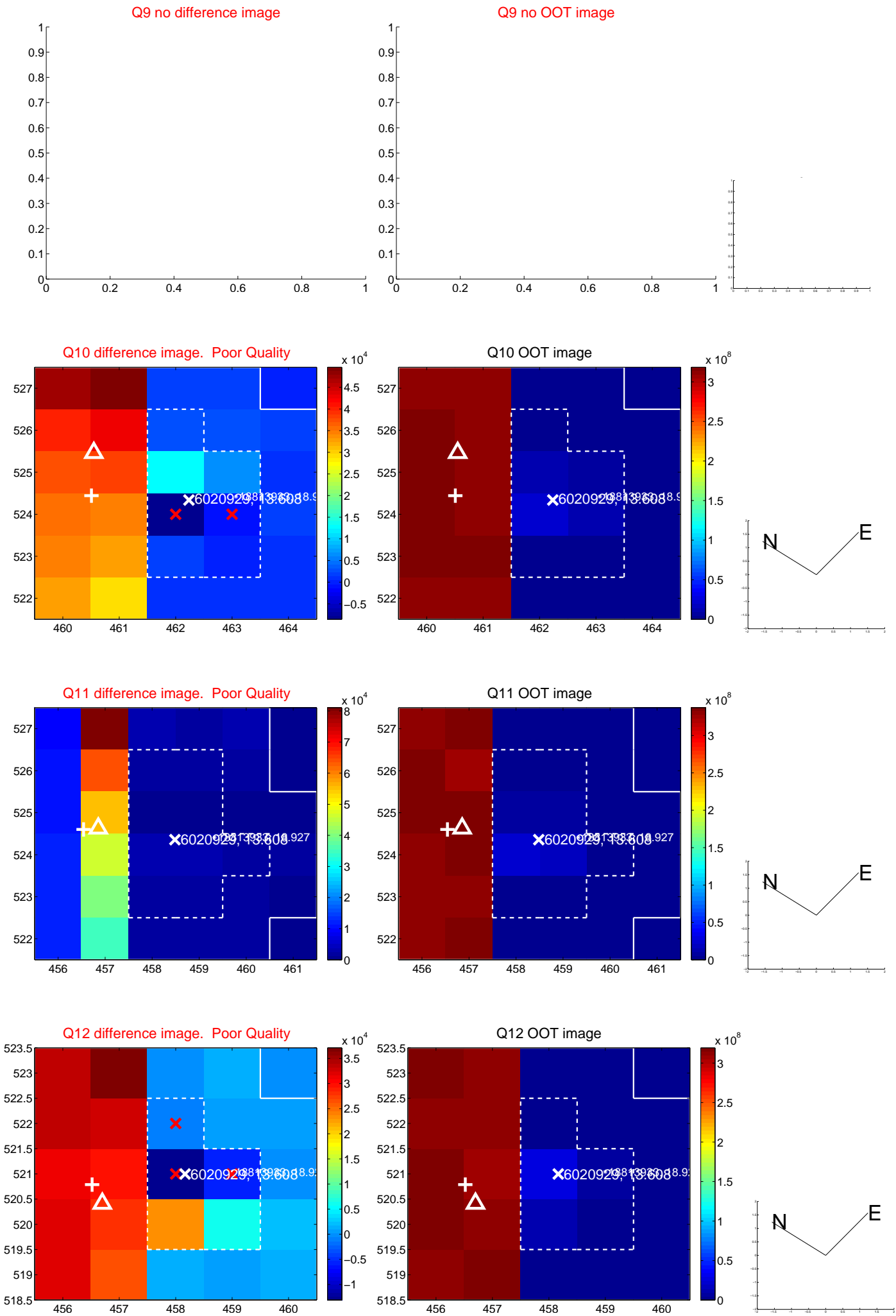
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



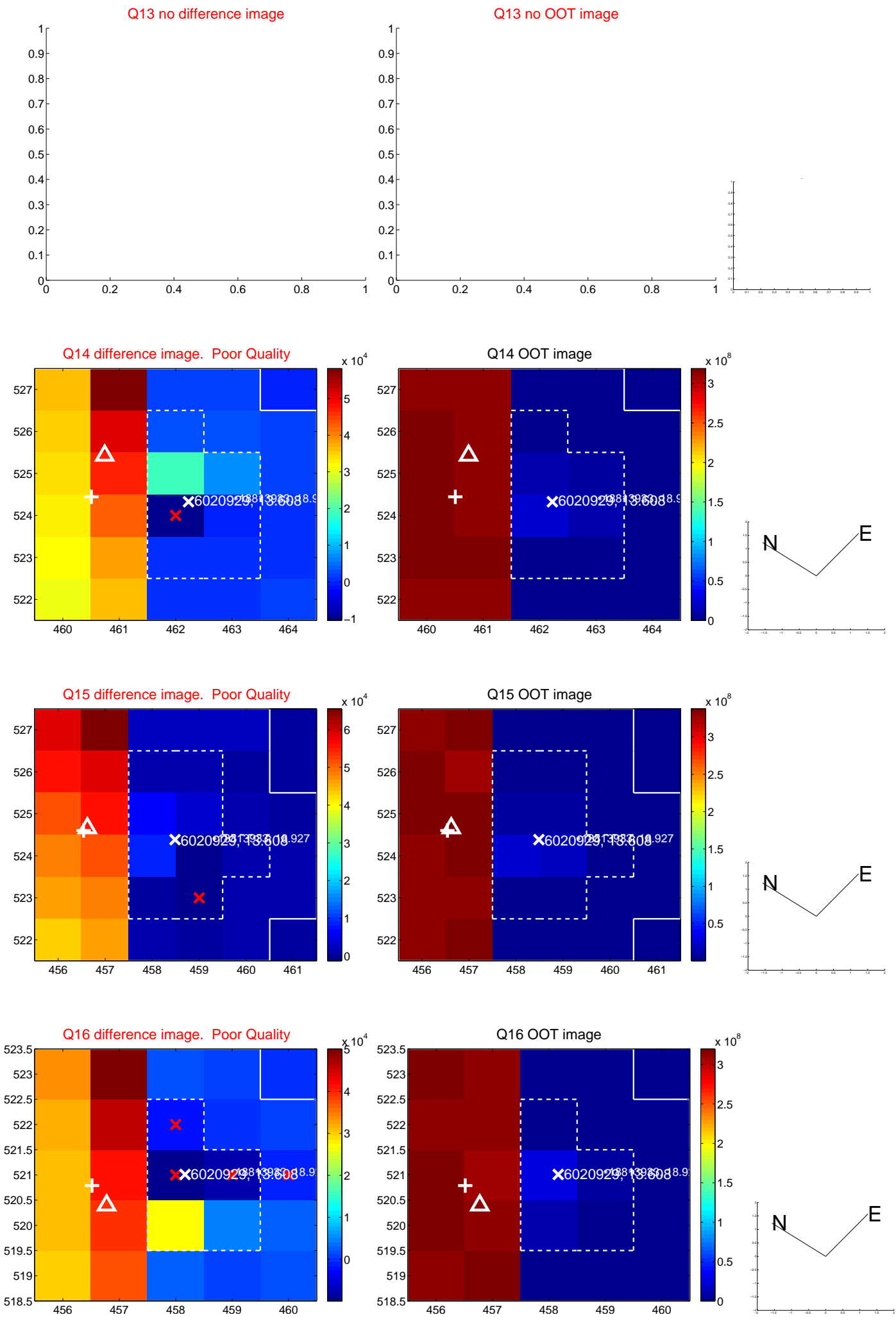
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



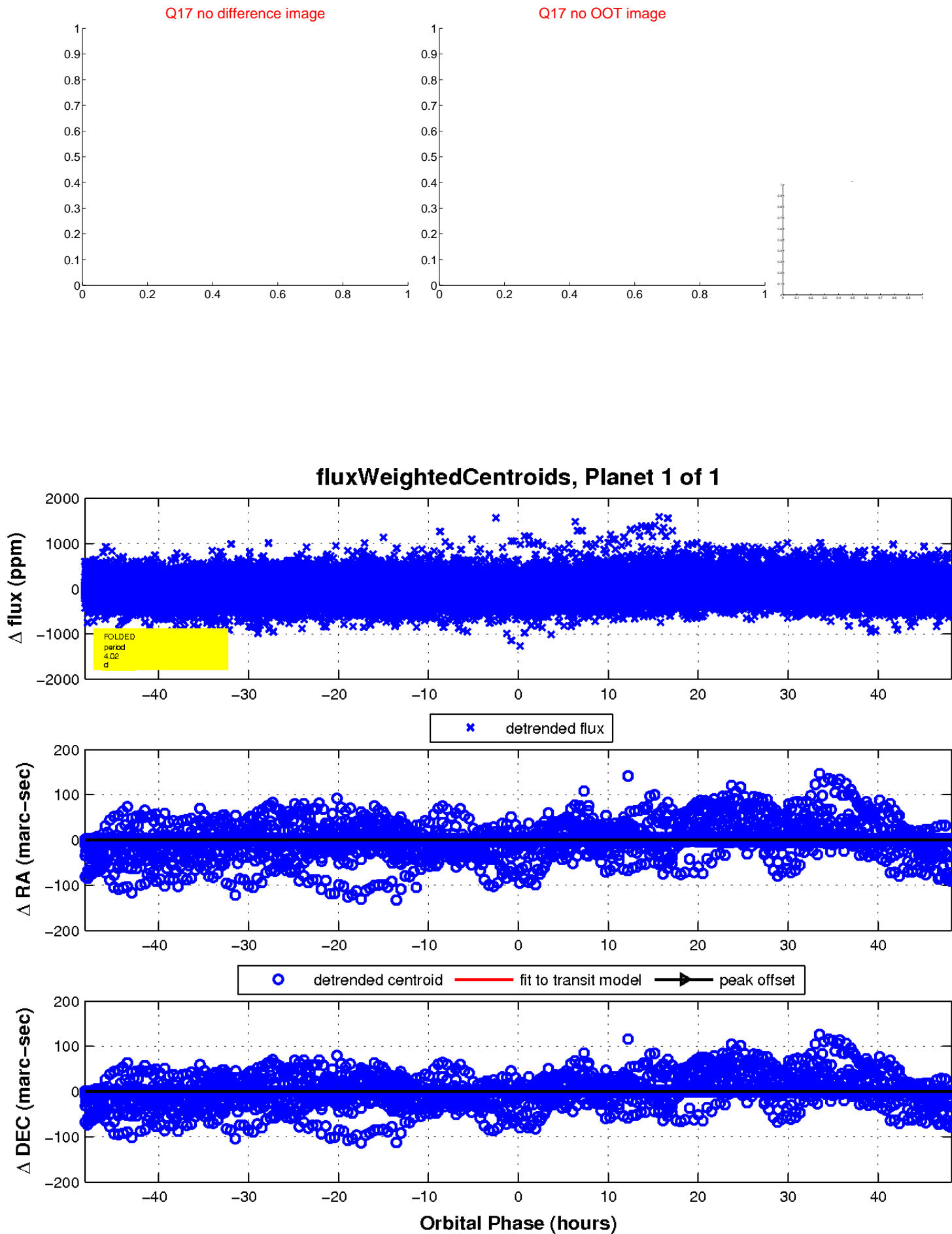
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

