

KIC 007627570

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})
007627570-01	OBS	No	0.804744	131.932757	4.4	6.977	7.9	2.7	11.95	6980	2.67	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007627570-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV

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

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

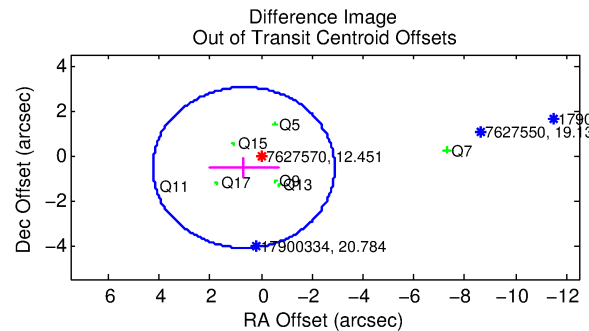
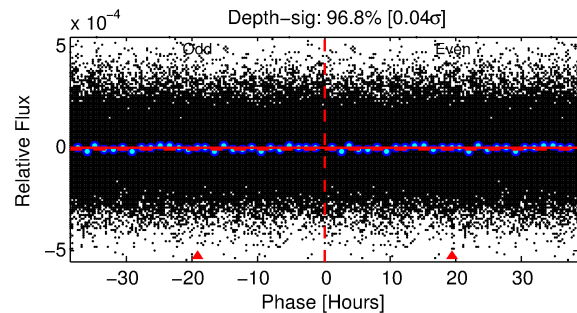
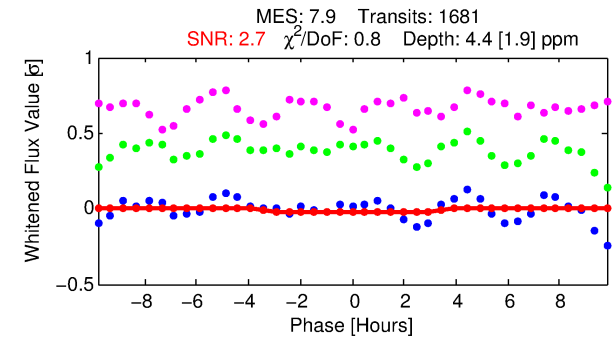
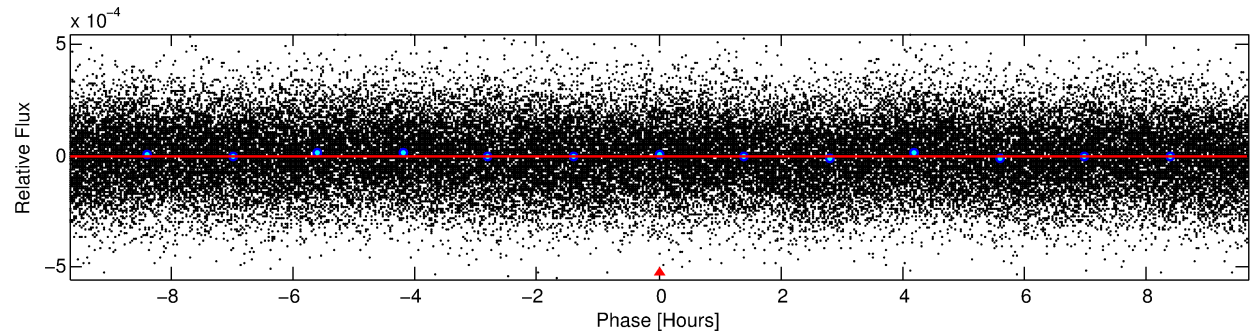
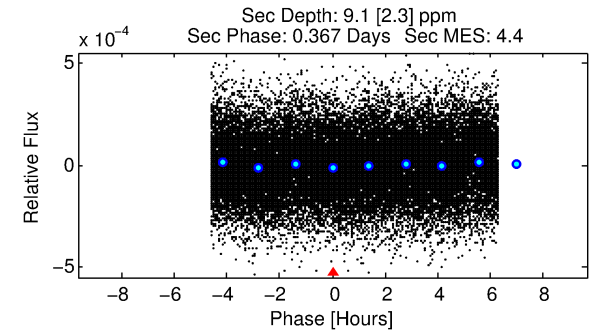
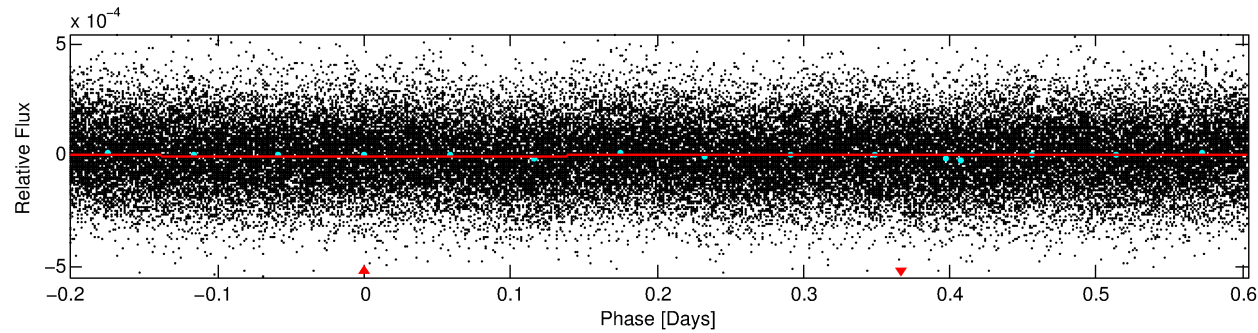
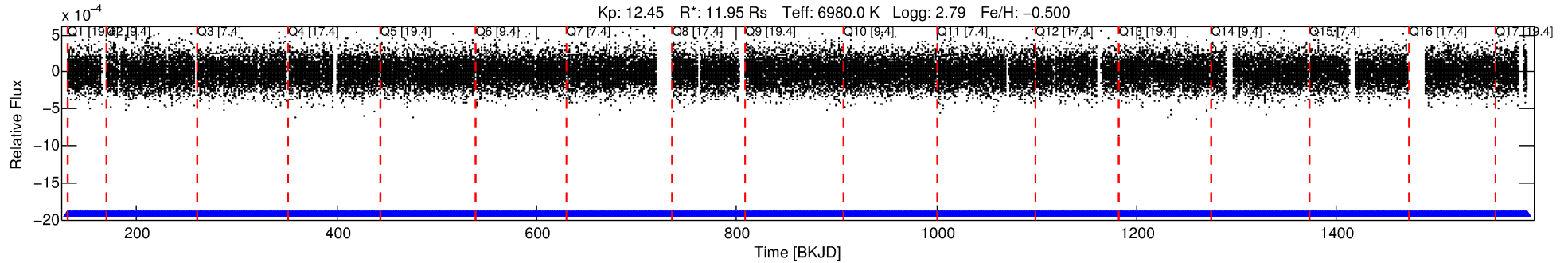
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007627570-01

No Significant Match Found

DV One-Page Summary

KIC: 7627570 Candidate: 1 of 1 Period: 0.805 d



DV Fit Results:

Period = 0.80474 [0.00005] d
Epoch = 131.9328 [0.0149] BKJD
Rp/R* = 0.0020 [0.0030]
a/R* = 1.06 [1.00]
b = 0.65 [7.37]
Seff = N/A
Teq = N/A
Rp = 2.67 [4.20] Re
a = N/A
Ag = N/A
Teffp = N/A

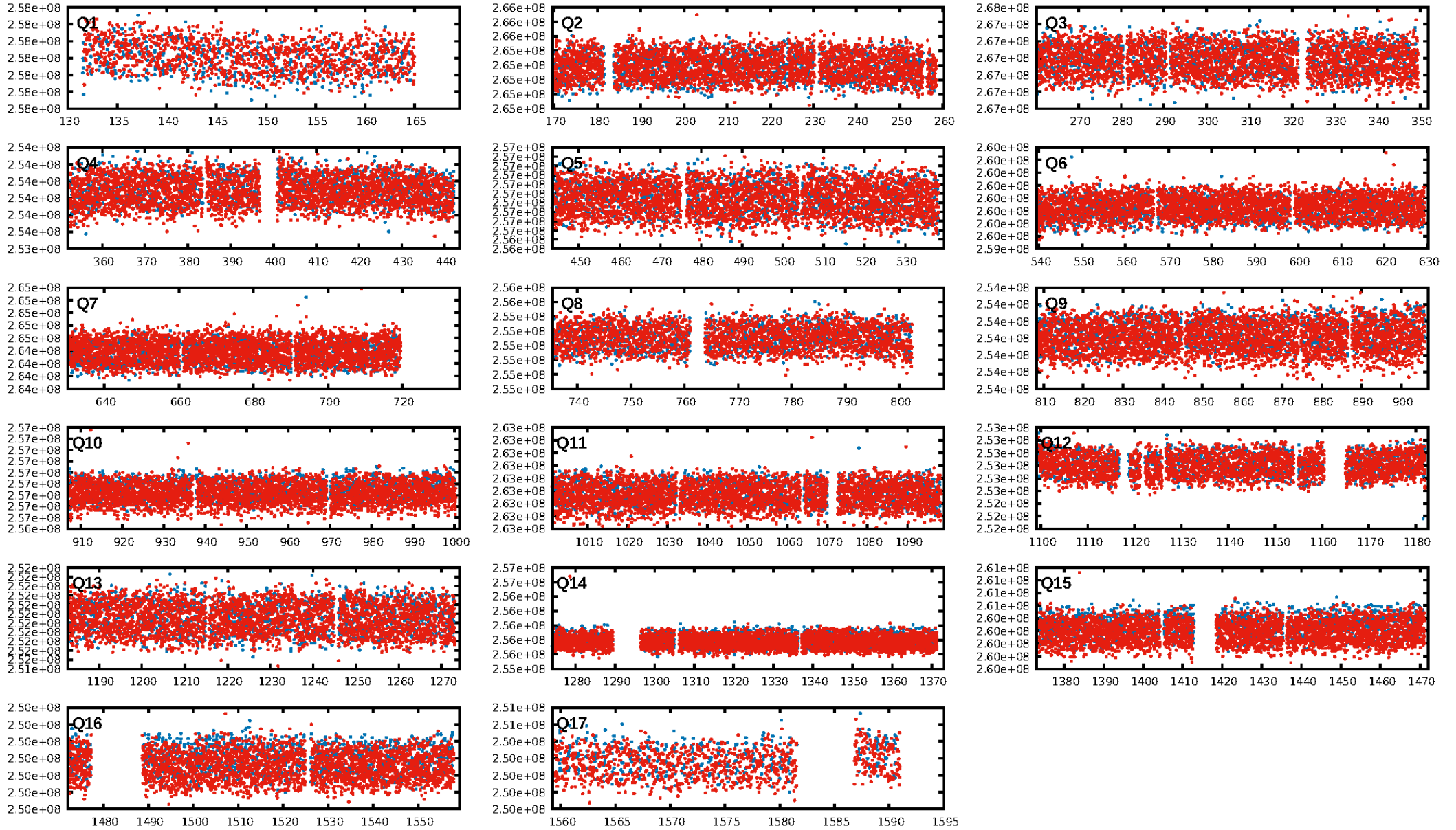
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1605/1605]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.871 arcsec [0.73σ]
KicOffset-rm: 0.801 arcsec [0.64σ]
OotOffset-st: 0/3/0/4 [7]
KicOffset-st: 0/3/0/4 [7]
DiffImageQuality-fgm: 0.86 [6/7]
DiffImageOverlap-fno: 1.00 [17/17]

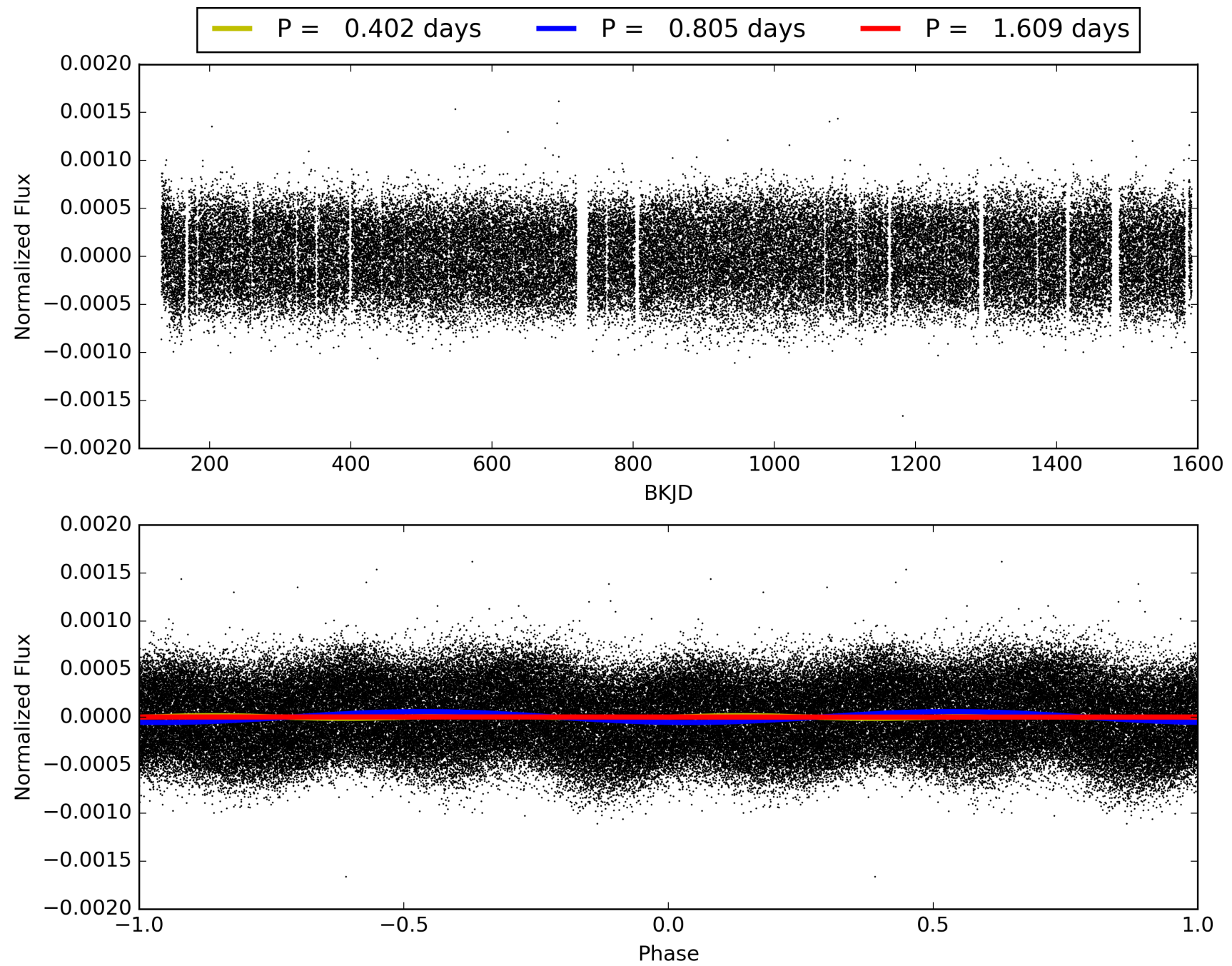
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:08:49 Z

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

TCE 007627570-01, PDC Light Curves

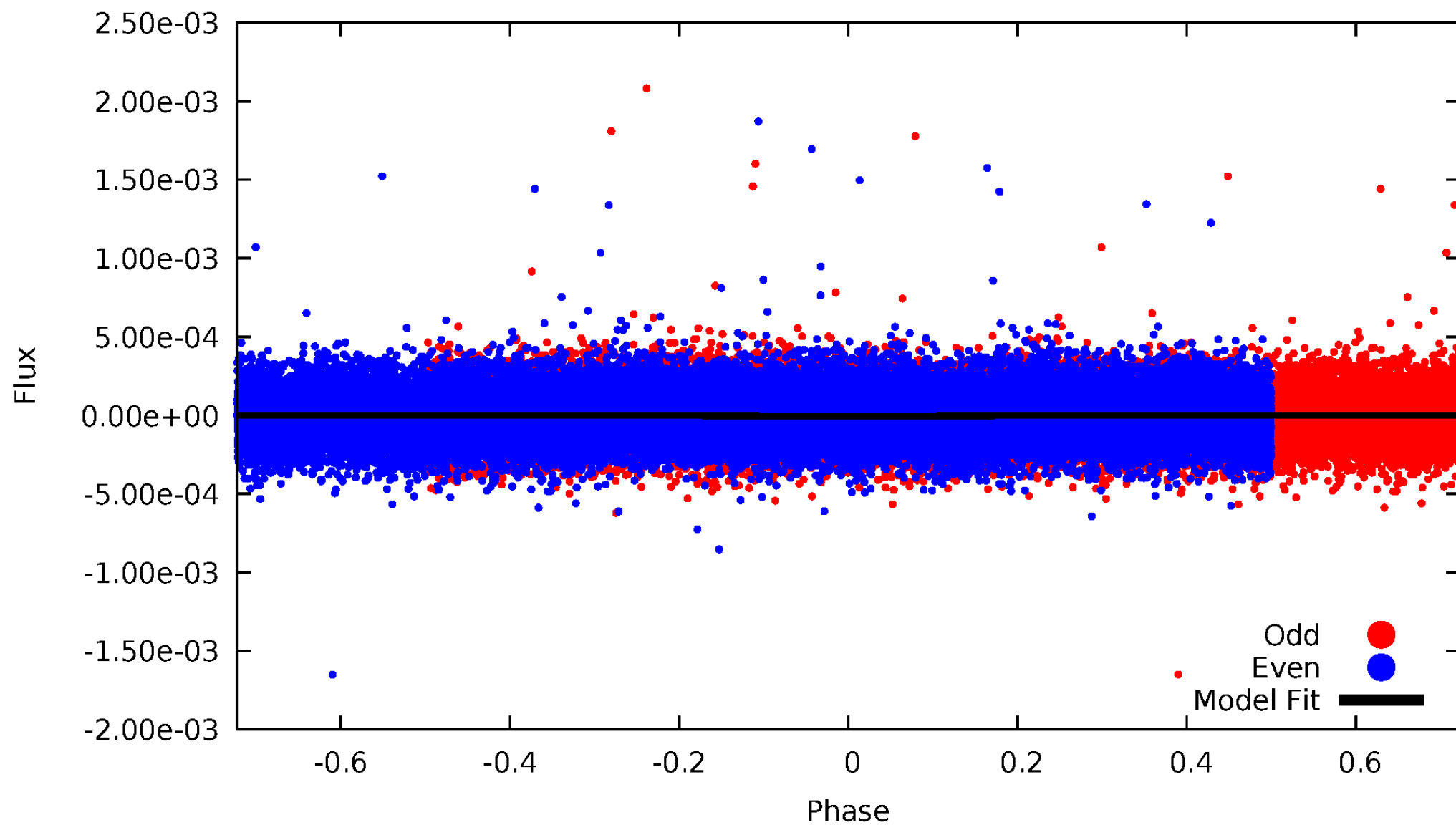


TCE 007627570-01



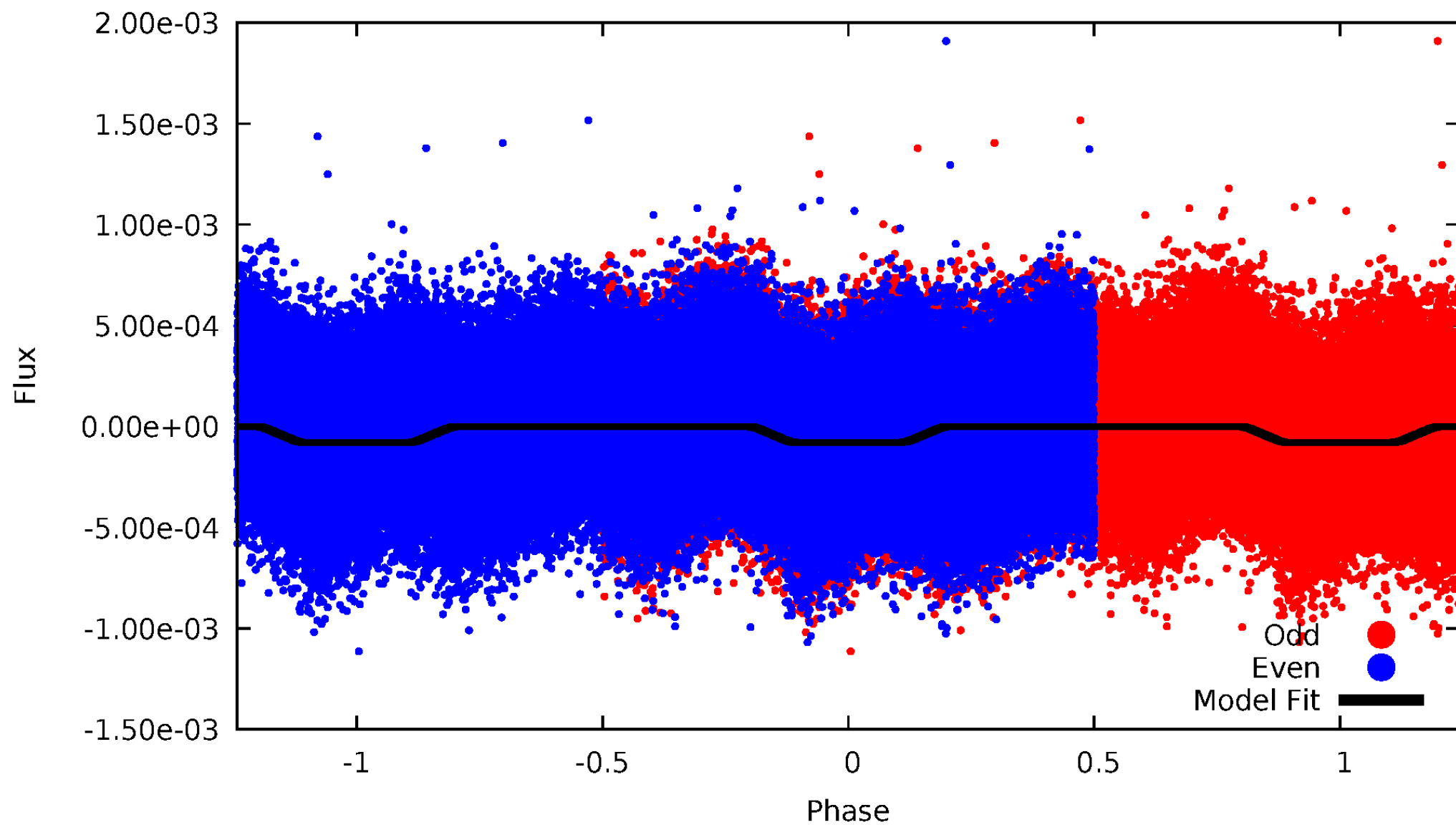
DV Odd/Even

TCE 007627570-01



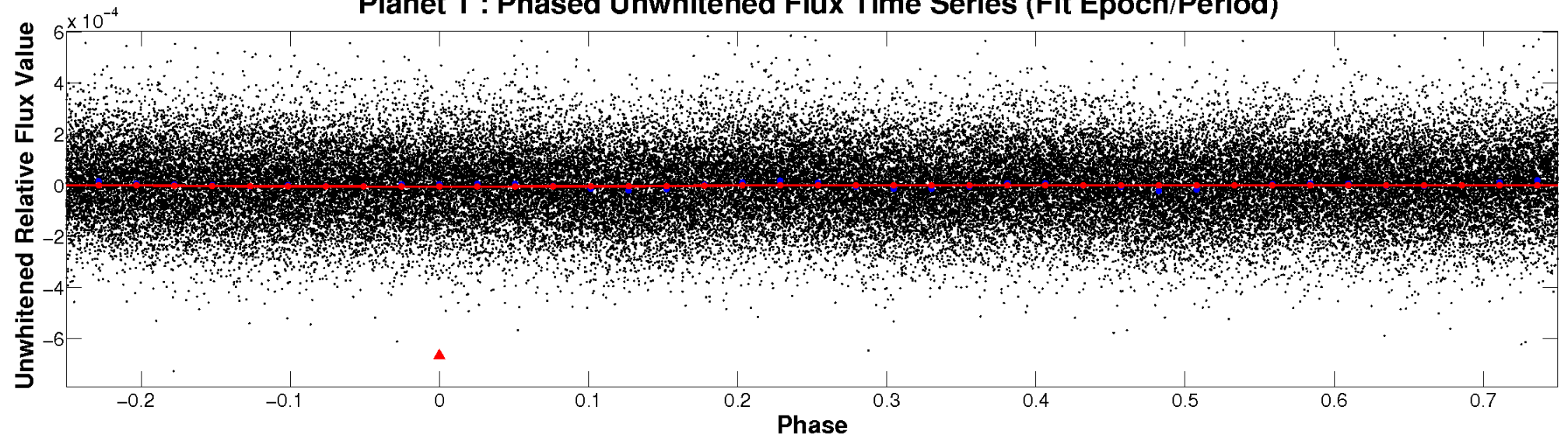
ALT Odd/Even

TCE 007627570-01

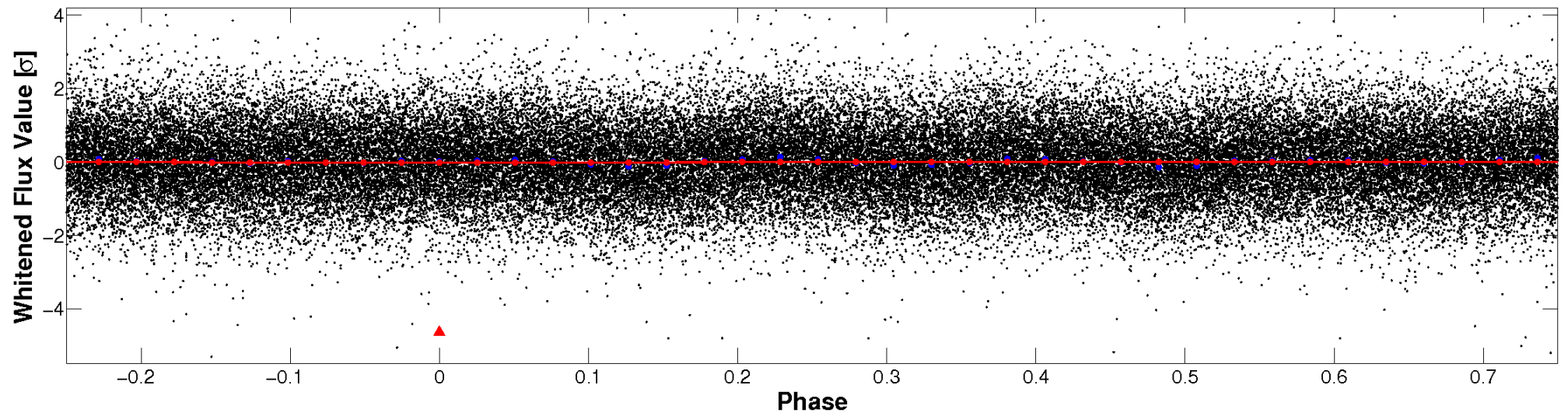


Non-Whitened Vs. Whitened Light Curve

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

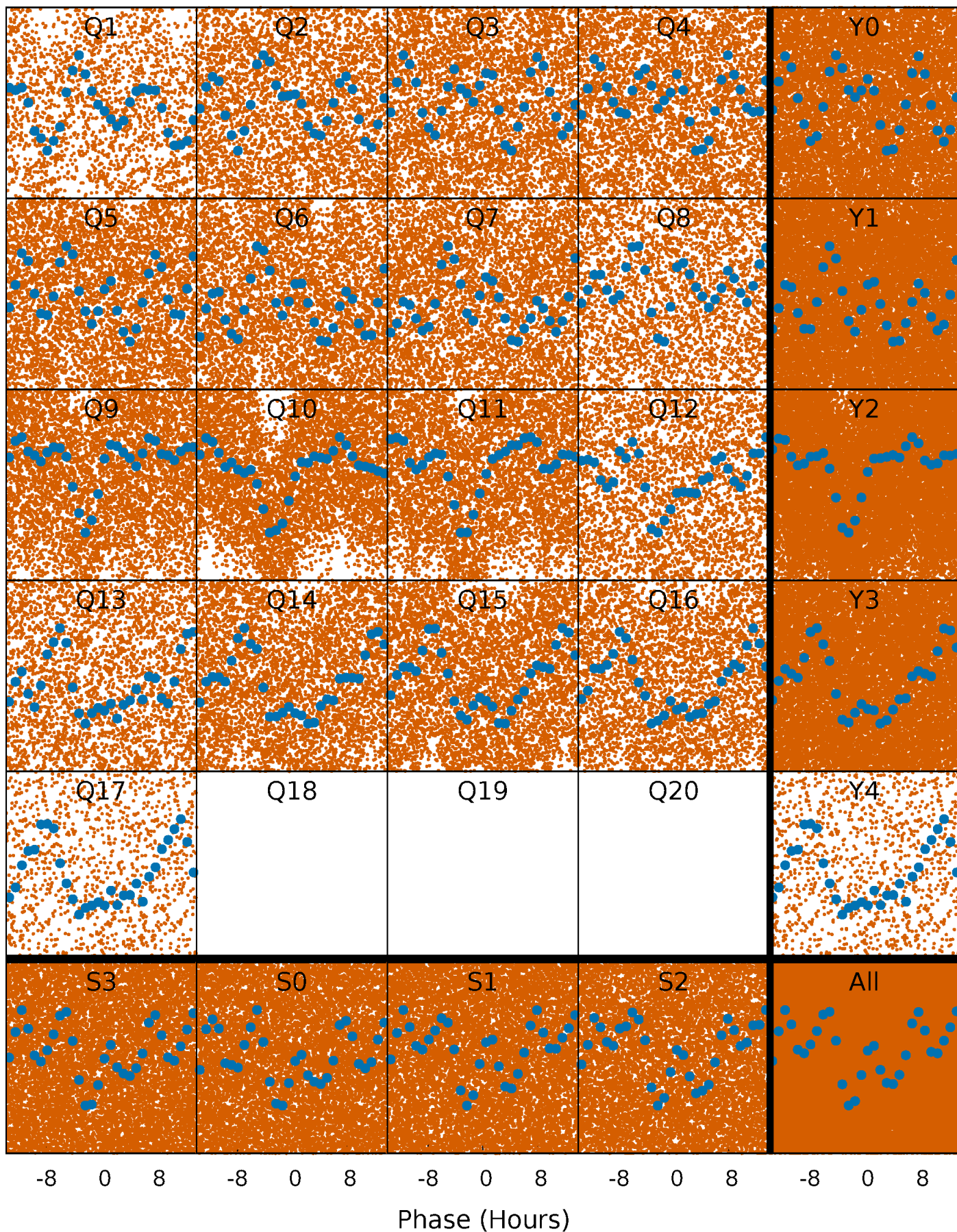


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



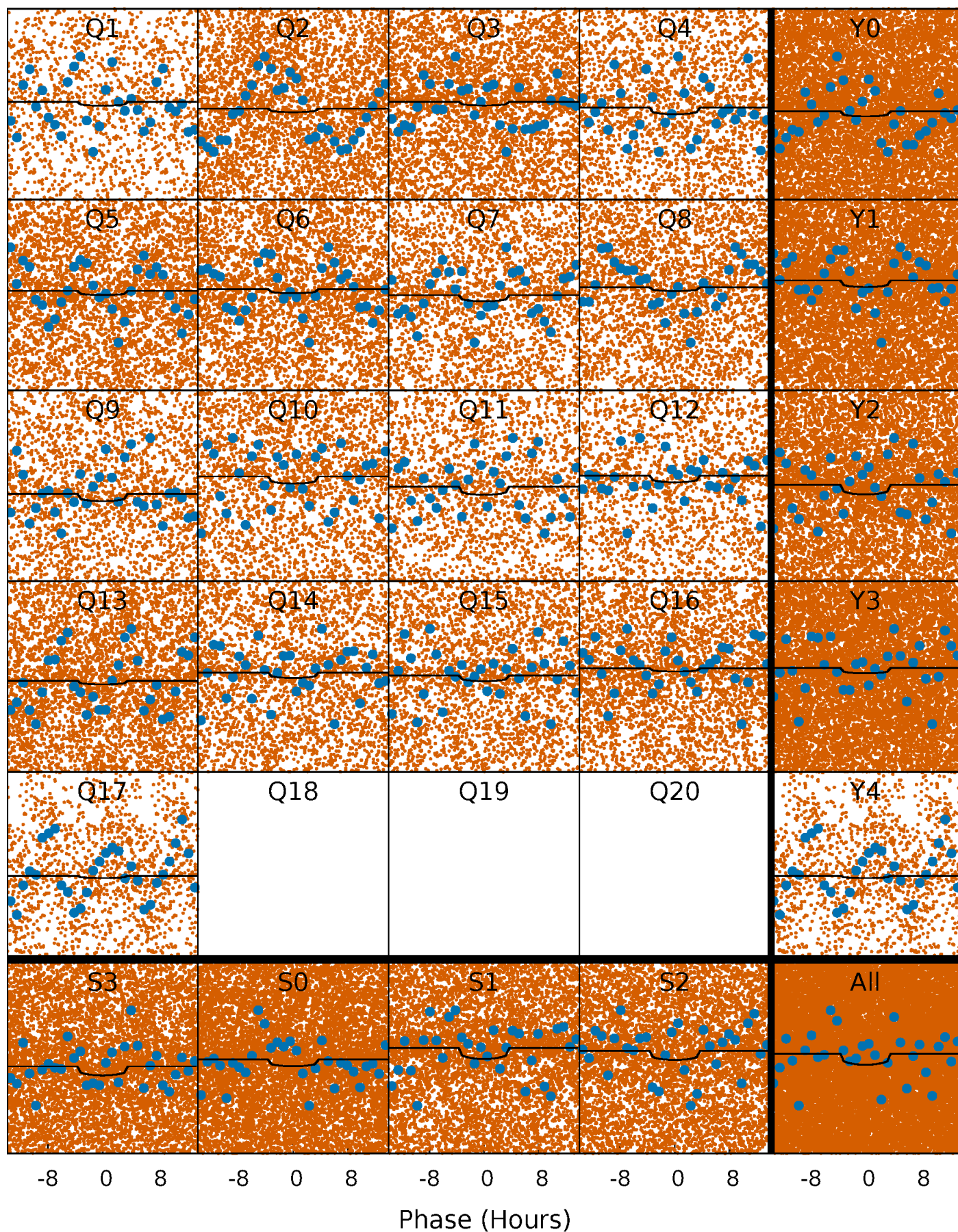
PDC Quarter-Phased Transit Curves

TCE 007627570-01 P= 0.804744 Days $T_0=131.932757$ (BKJD)



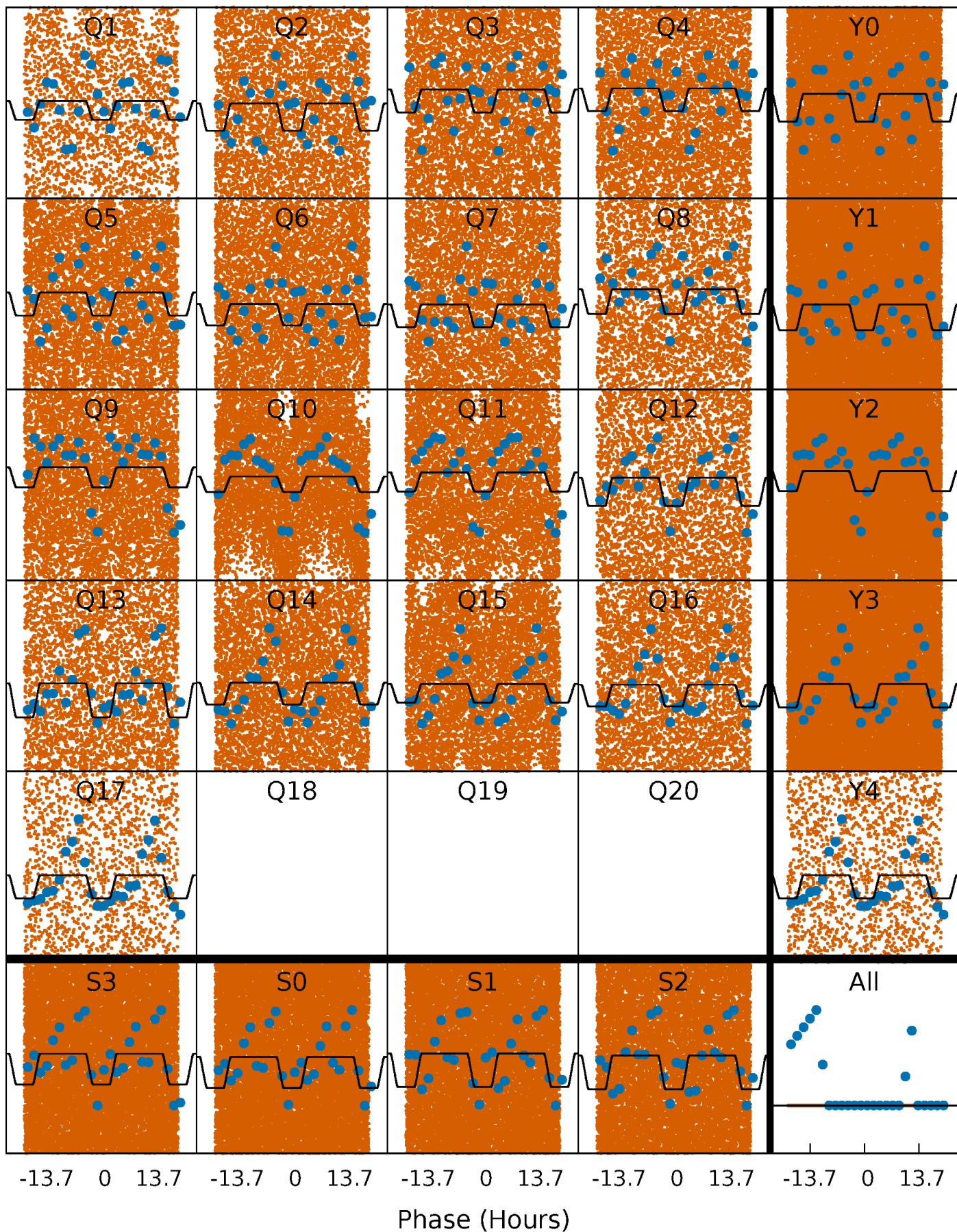
DV Quarter-Phased Transit Curves

TCE 007627570-01 P= 0.804744 Days $T_0=131.932757$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

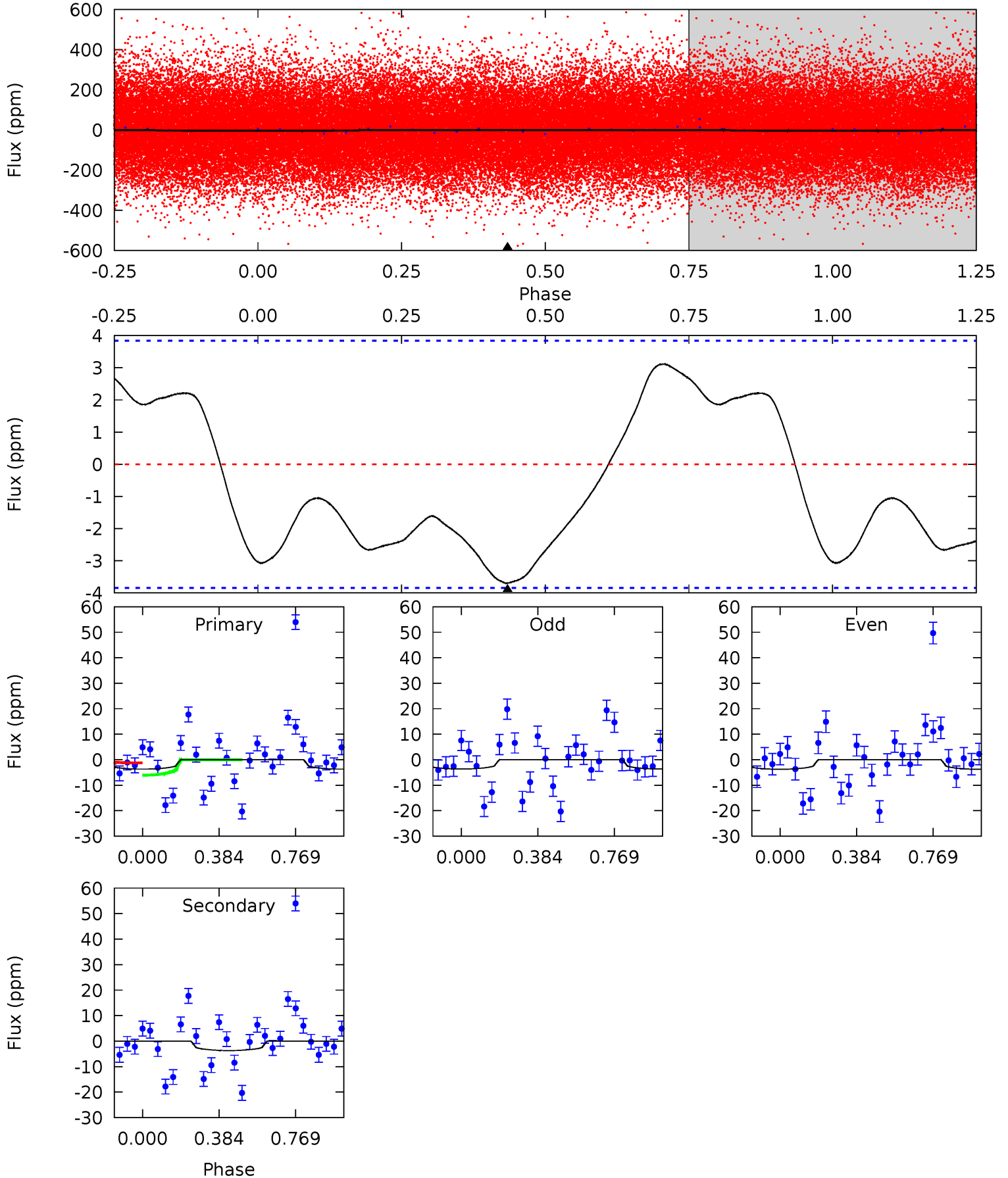
TCE 007627570-01 P= 0.804697 Days $T_0=131.938694$ (BKJD)



DV Model-Shift Uniqueness Test

007627570-01, P = 0.804744 Days, E = 131.128013 Days

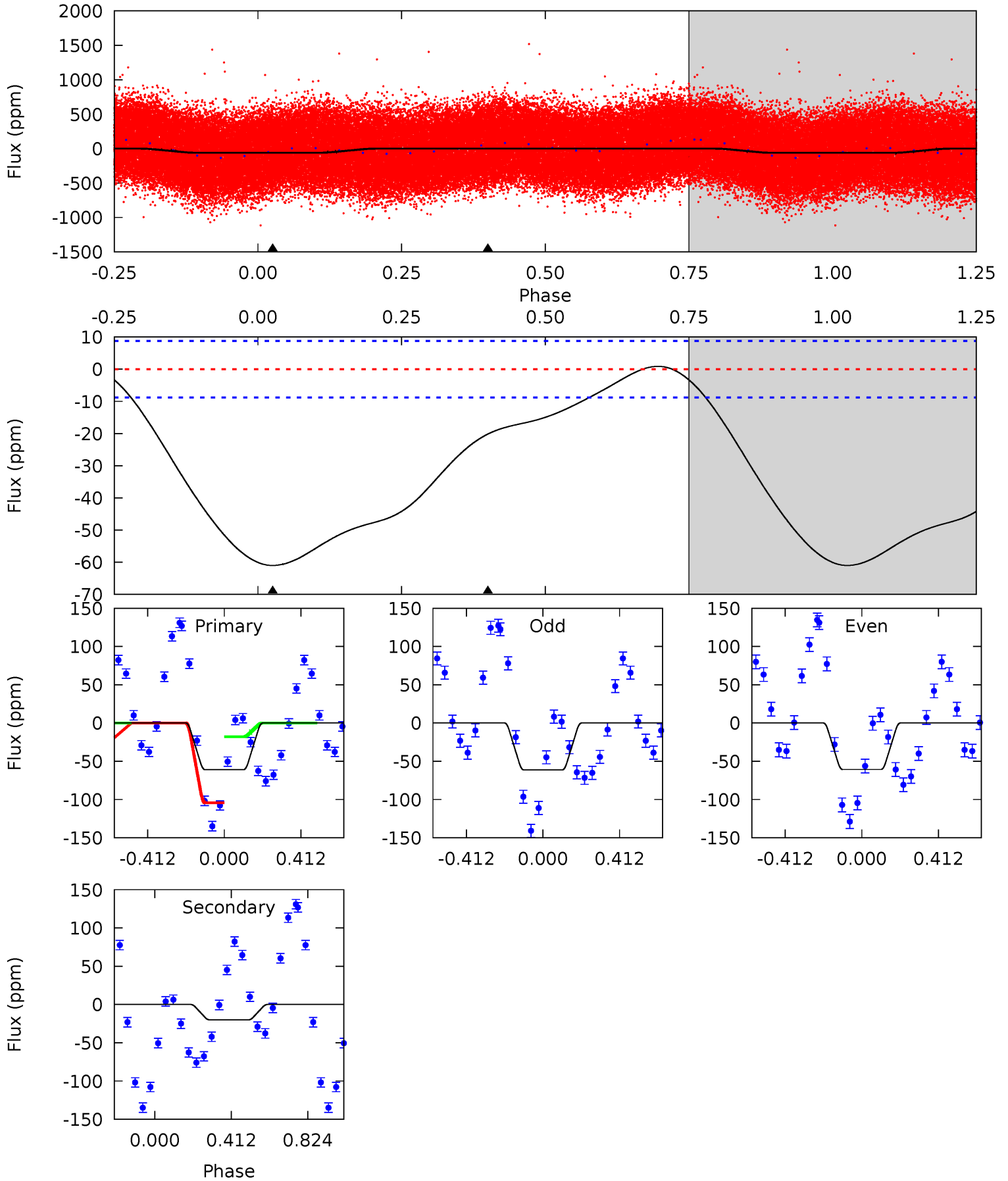
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.11	4.11	0	0	4.27	0.87	2.39	4.11	4.11	4.11	4.11	0.06	0.82	0.46	2.71



Alt Model-Shift Uniqueness Test

007627570-01, P = 0.804697 Days, E = 131.133997 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	9.77	0	0	4.26	0.82	0.88	29.6	29.6	9.77	9.77	0.14	1.02	0.01	21.7



Stellar Parameters For KIC 007627570

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6980^{+144}_{-308}	$2.794^{+0.576}_{-0.032}$	$-0.500^{+0.550}_{-0.250}$	$11.948^{+0.783}_{-7.434}$	$3.239^{+0.071}_{-1.277}$	$0.003^{+0.025}_{-0.001}$
	+2%/-4%	+21%/-1%	+110%/-50%	+7%/-62%	+2%/-39%	+921%/-21%
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 007627570-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 1	$3.10^{+3.39}_{-2.06}$	8897^{+608}_{-1370}	-5895^{+14341}_{-1439}	$0.128^{+0.898}_{-0.099}$
Alt.	-20 ± 2	$9.56^{+4.30}_{-4.04}$	8855^{+652}_{-1328}	-6662^{+1929}_{-824}	$0.073^{+0.135}_{-0.037}$

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 $A_{obs} \gg 1.0$

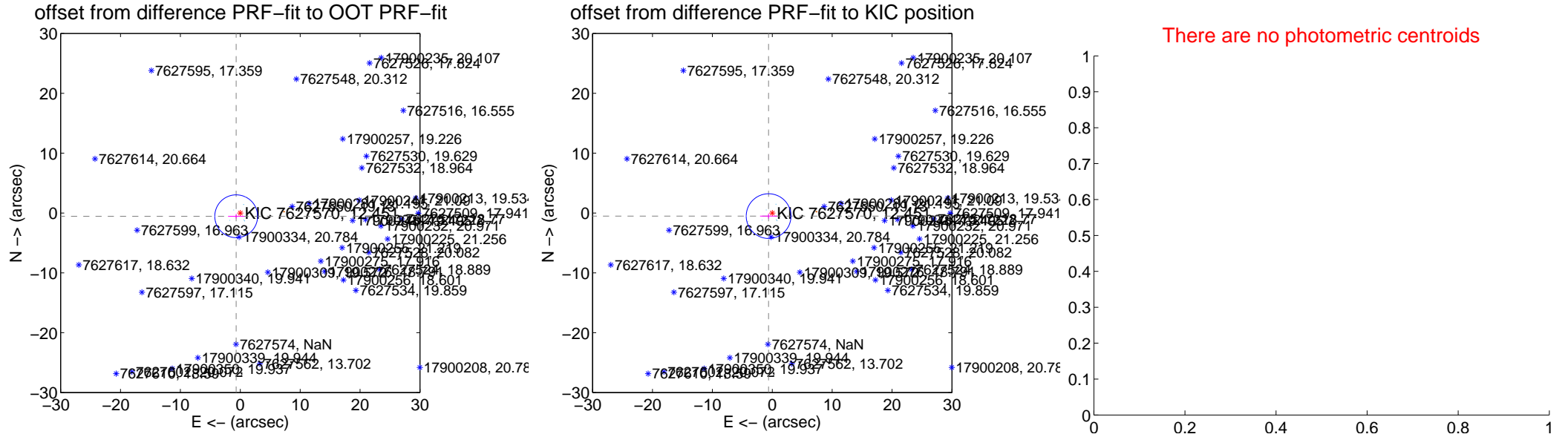
DV Centroid Data

Supplemental centroid analysis for 007627570-01. Kepler magnitude: 12.45. Transit SNR 2.74

There are 6 quarters with good PRF difference image offsets

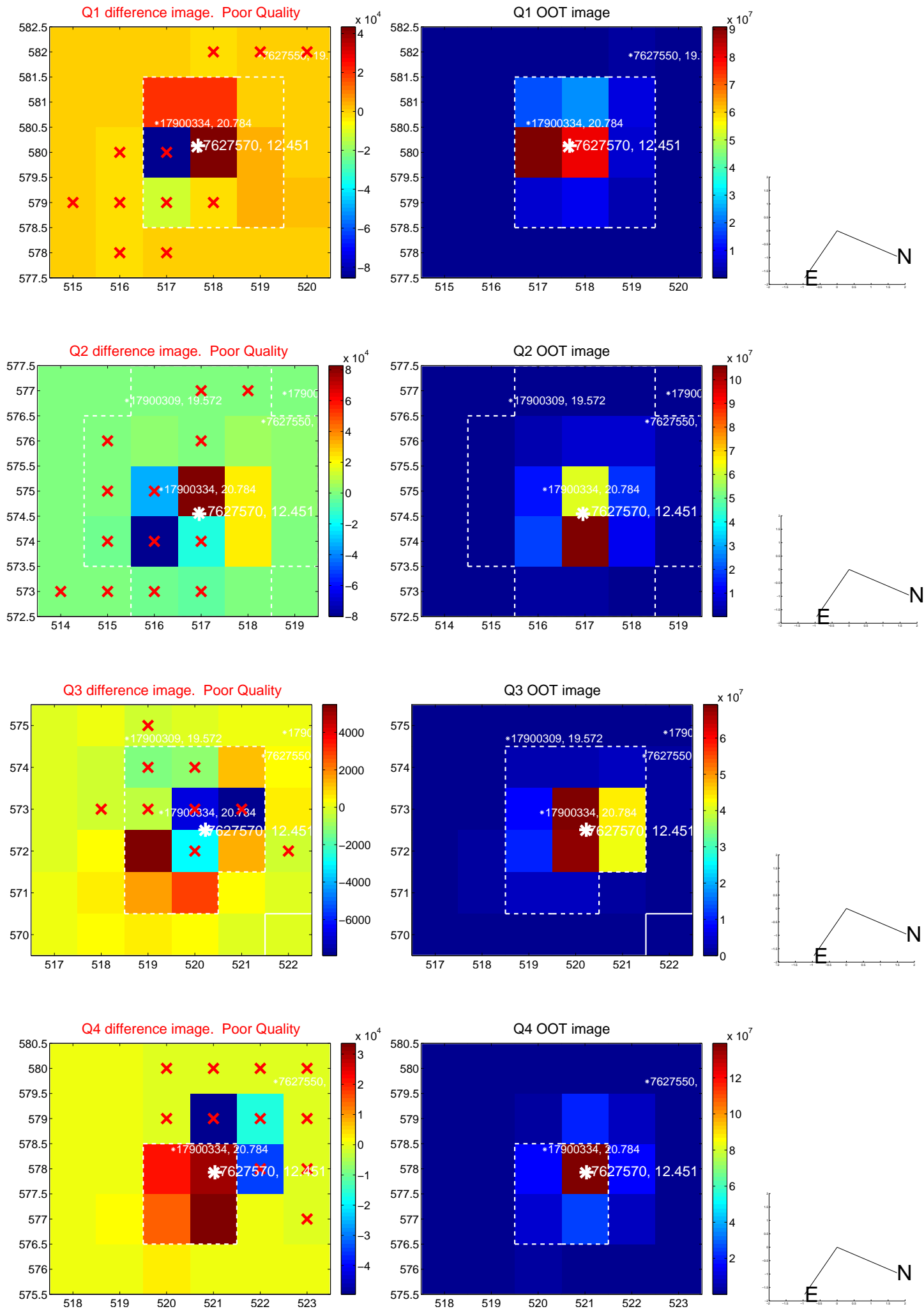
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.871 ± 1.192	0.73	0.683 ± 1.353	-0.541 ± 0.378
PRF-fit source offset from KIC position	0.801 ± 1.245	0.64	0.612 ± 1.432	-0.517 ± 0.422
photometric centroid source offset	—	—	—	—

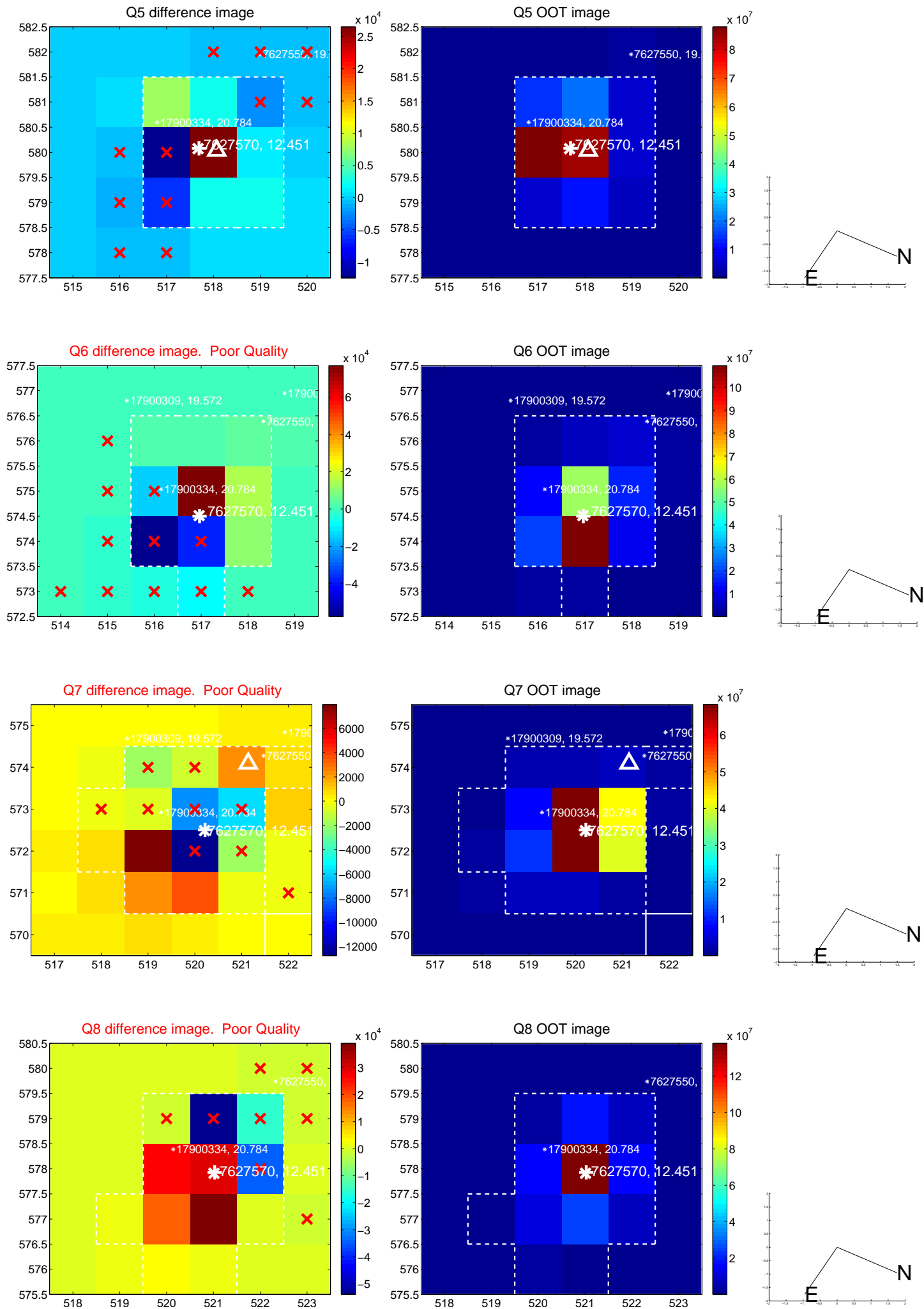


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

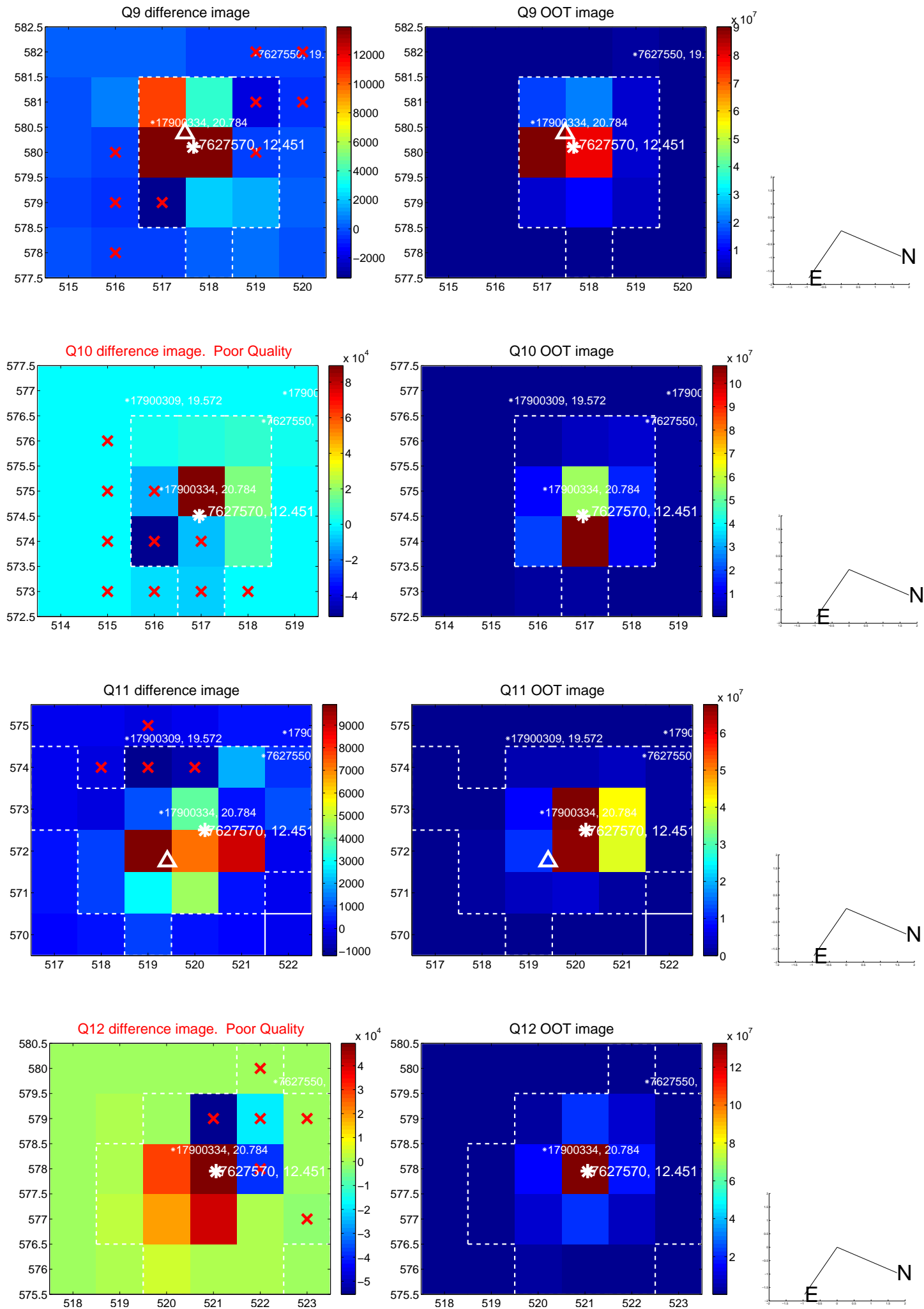
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



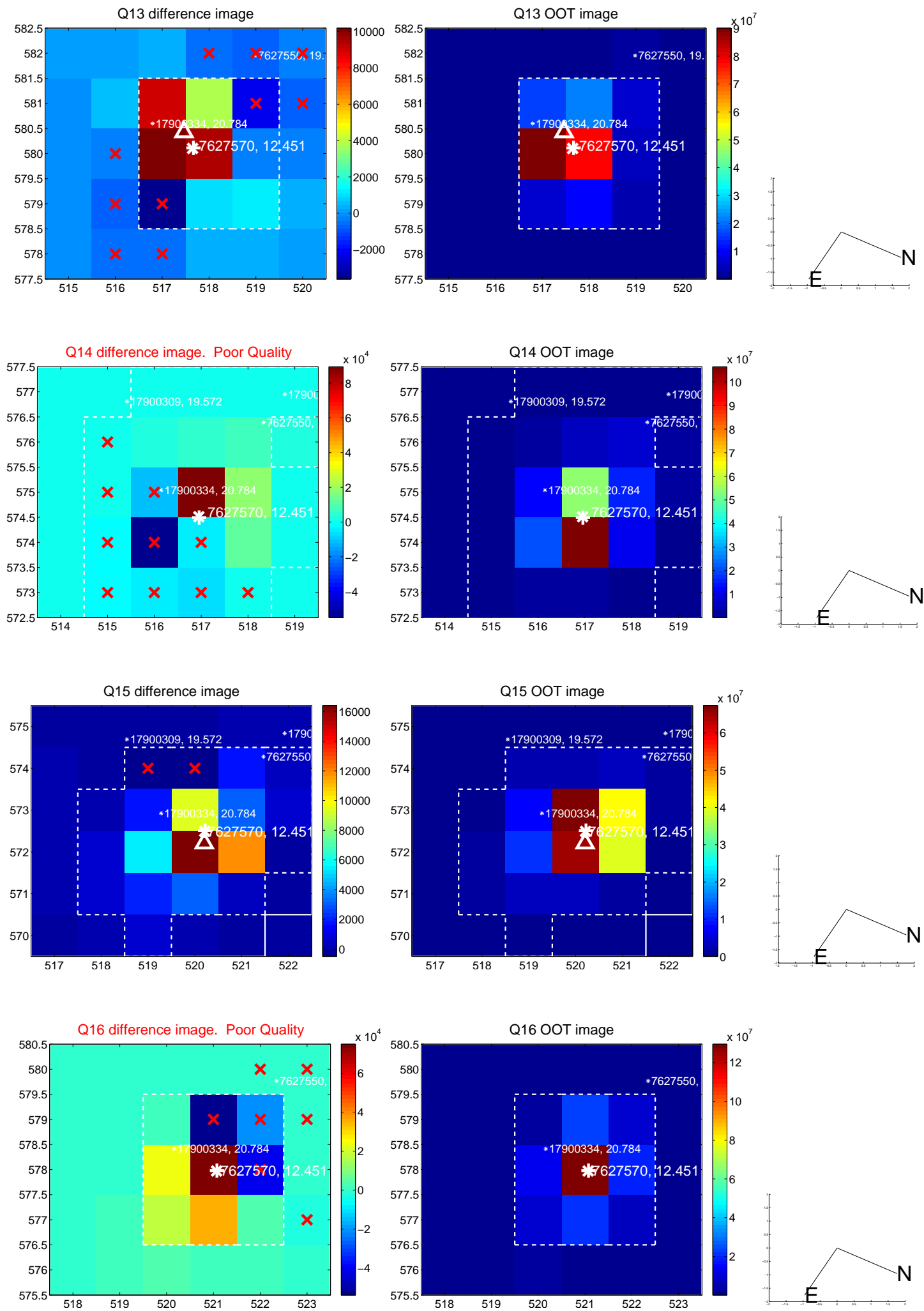
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



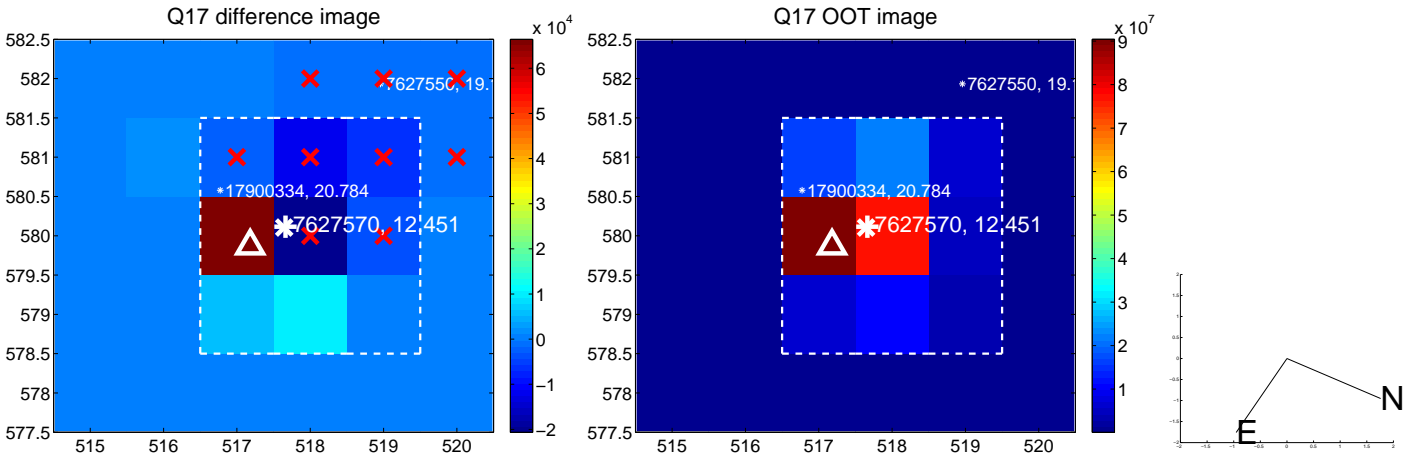
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

