

KIC 008757619

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})
008757619-01	OBS	No	6.708417	137.362951	38.8	26.044	7.6	7.3	0.92	5481	0.68	163.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008757619-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

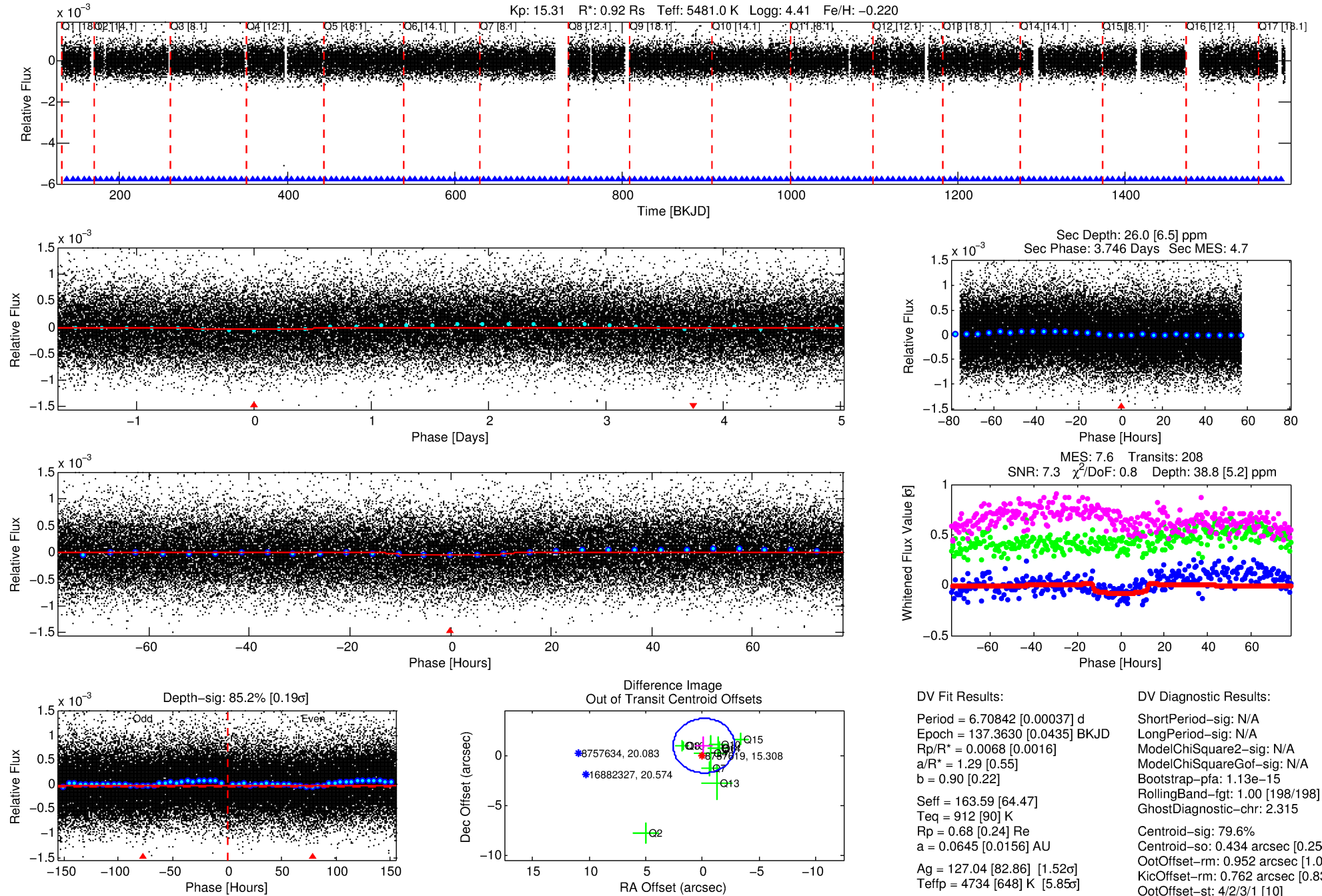
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008757619-01

No Significant Match Found

DV One-Page Summary

KIC: 8757619 Candidate: 1 of 1 Period: 6.708 d



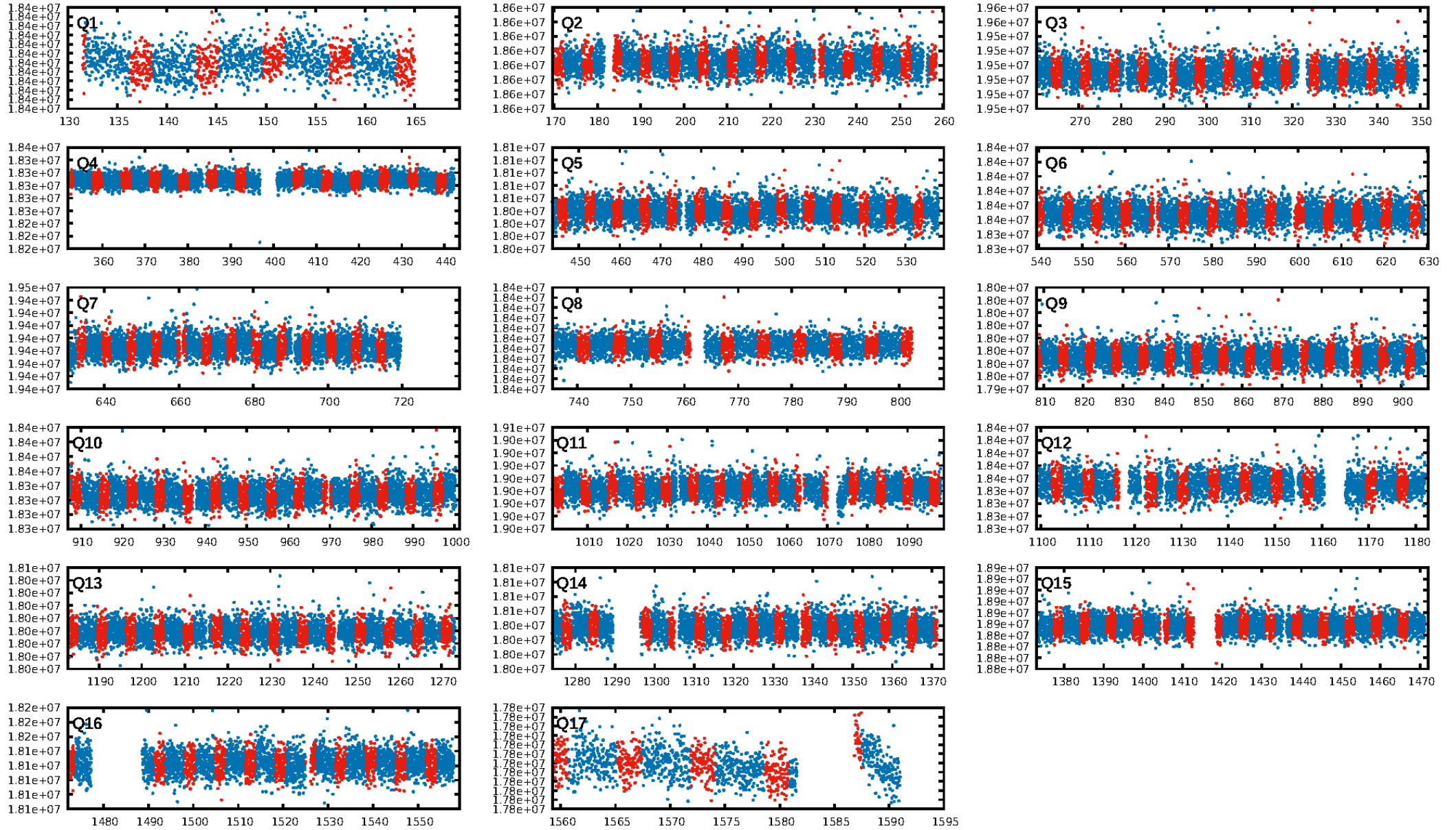
DV Fit Results:

Period = 6.70842 [0.00037] d
Epoch = 137.3630 [0.0435] BKJD
Rp/R* = 0.0068 [0.0016]
a/R* = 1.29 [0.55]
b = 0.90 [0.22]
Seff = 163.59 [64.47]
Teff = 912 [90] K
Rp = 0.68 [0.24] Re
a = 0.0645 [0.0156] AU
Ag = 127.04 [82.86] [1.52 σ]
Teffp = 4734 [648] K [5.85 σ]

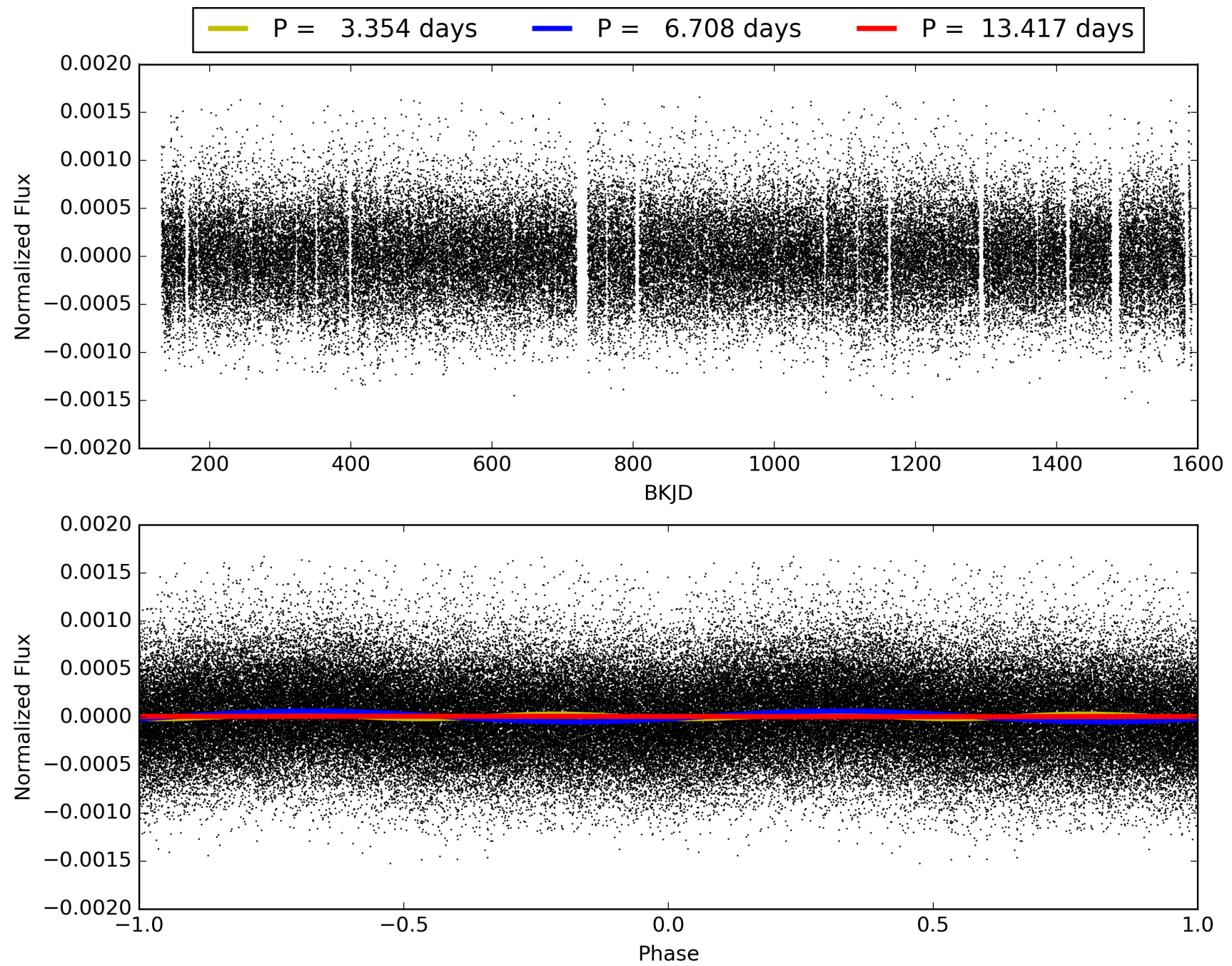
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.13e-15
RollingBand-fgt: 1.00 [198/198]
GhostDiagnostic-chr: 2.315
Centroid-sig: 79.6%
Centroid-so: 0.434 arcsec [0.25 σ]
OotOffset-rm: 0.952 arcsec [1.05 σ]
KicOffset-rm: 0.762 arcsec [0.83 σ]
OotOffset-st: 4/2/3/1 [10]
KicOffset-st: 4/2/3/1 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008757619-01, PDC Light Curves

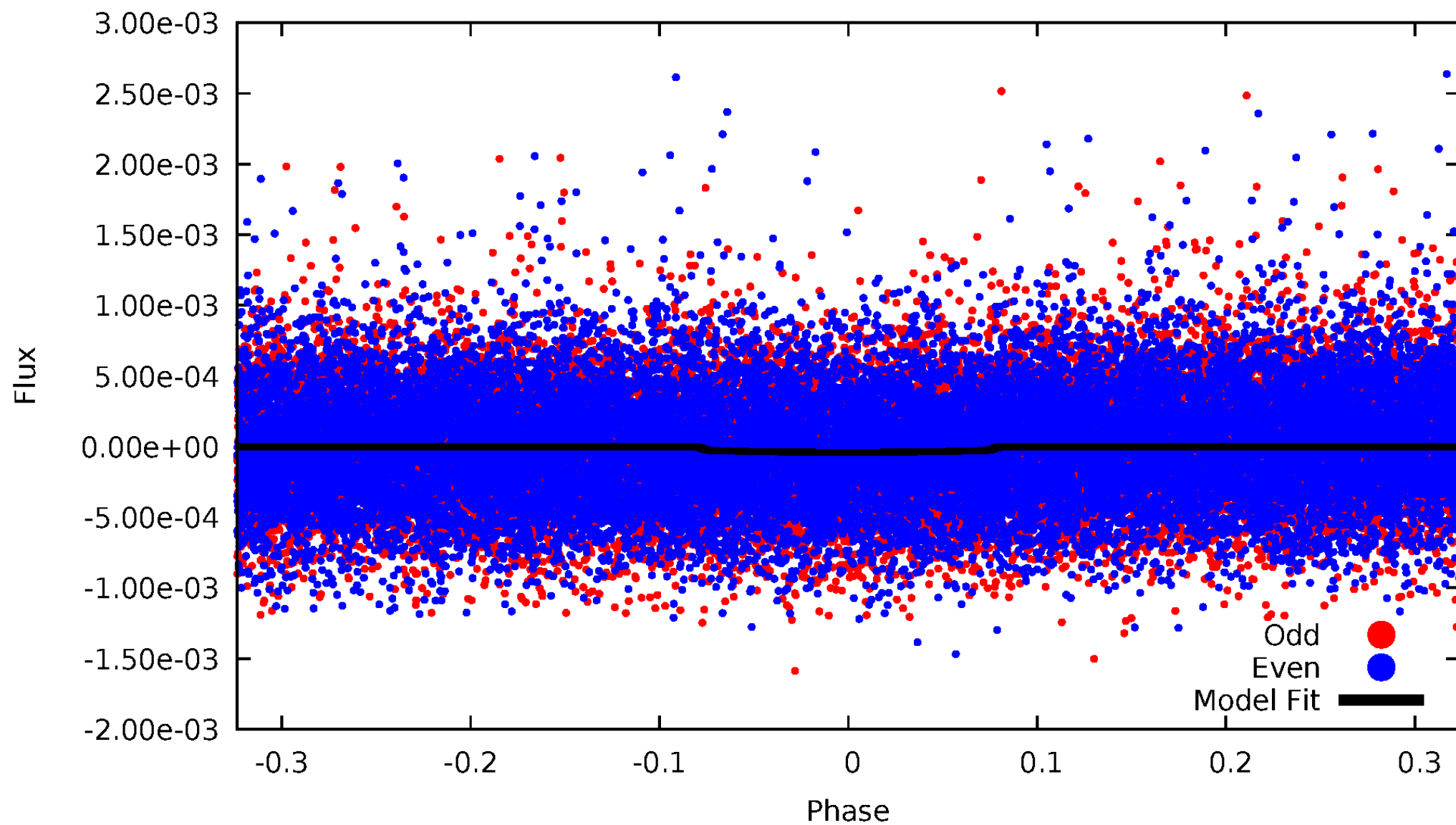


TCE 008757619-01



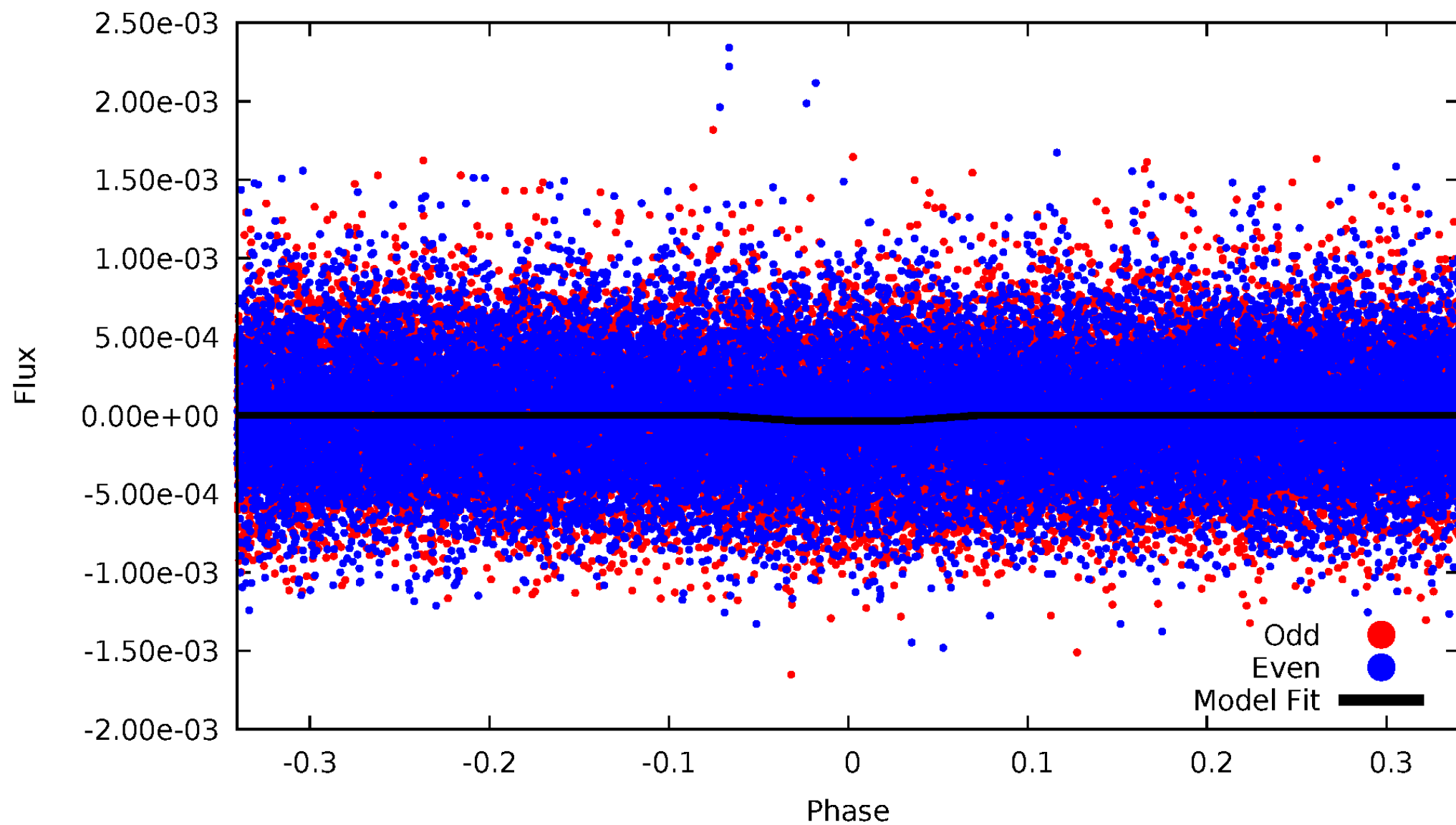
DV Odd/Even

TCE 008757619-01



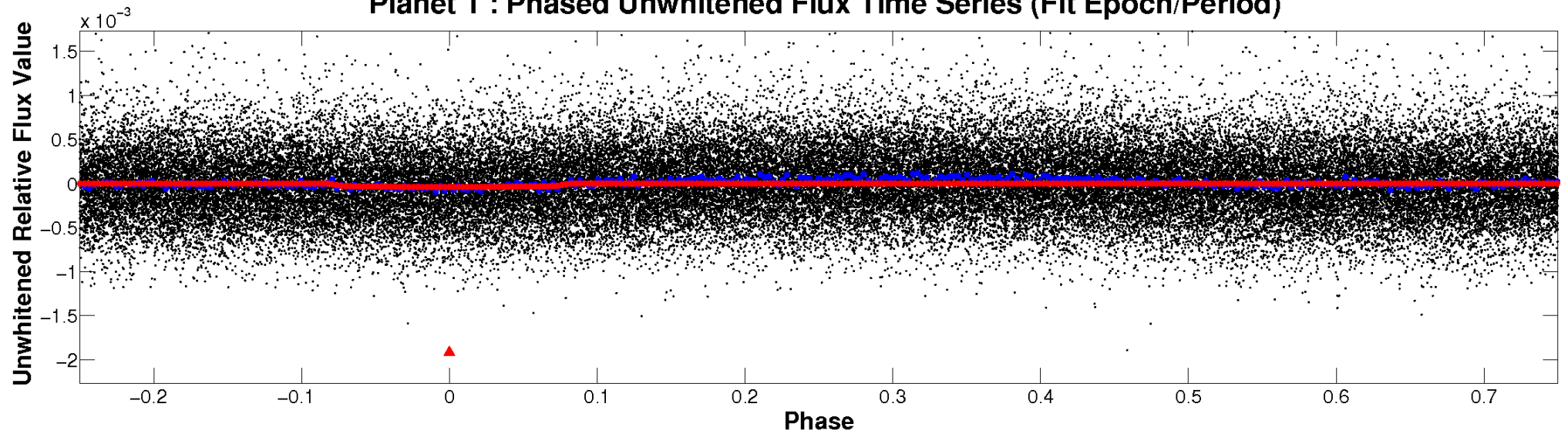
ALT Odd/Even

TCE 008757619-01

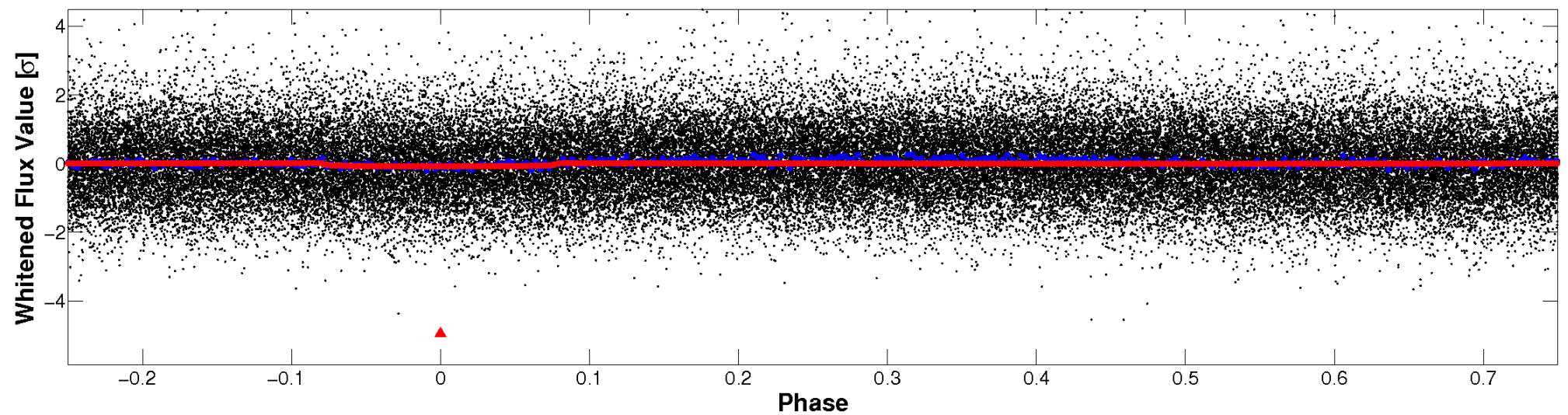


Non-Whitened Vs. Whitened Light Curve

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

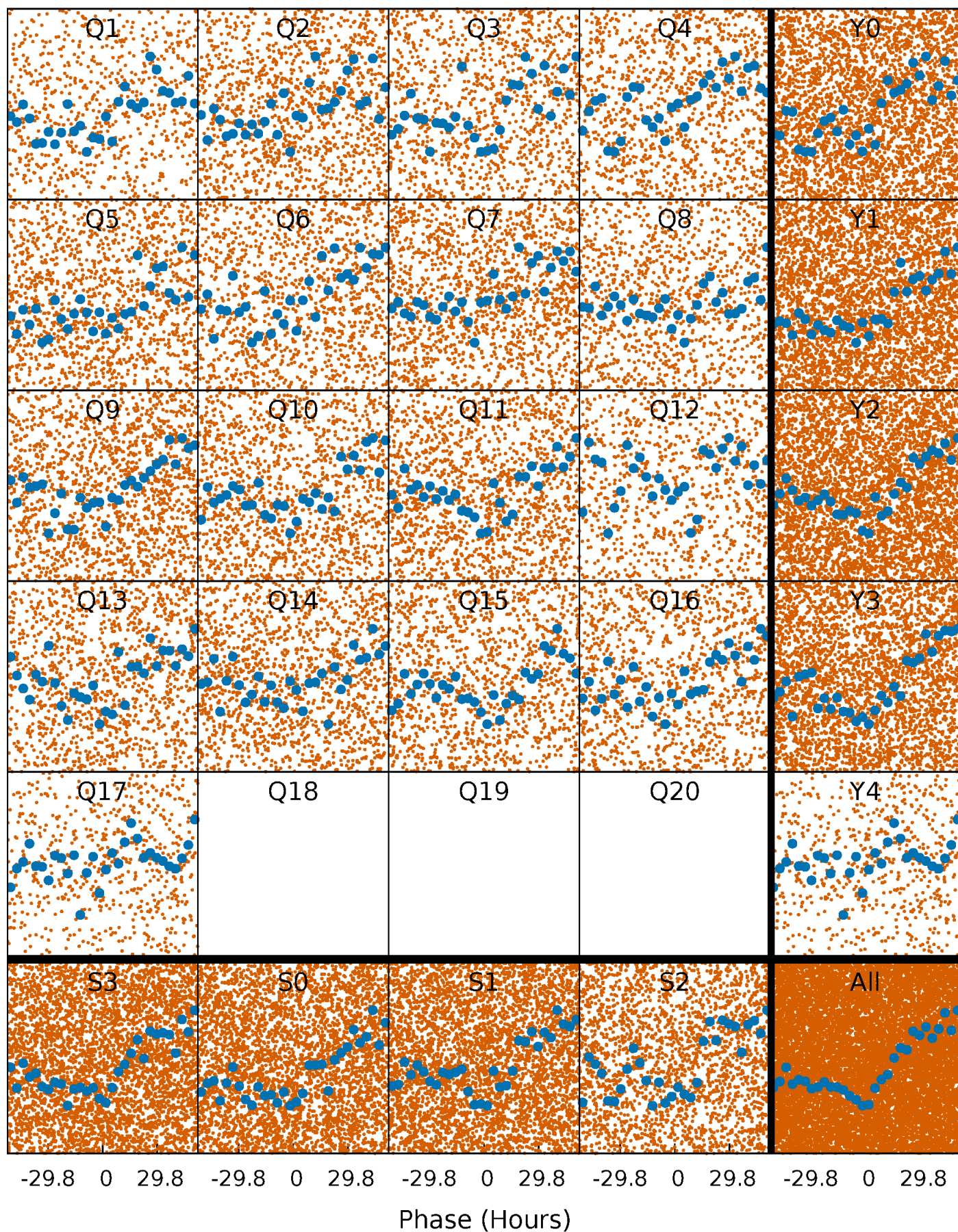


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



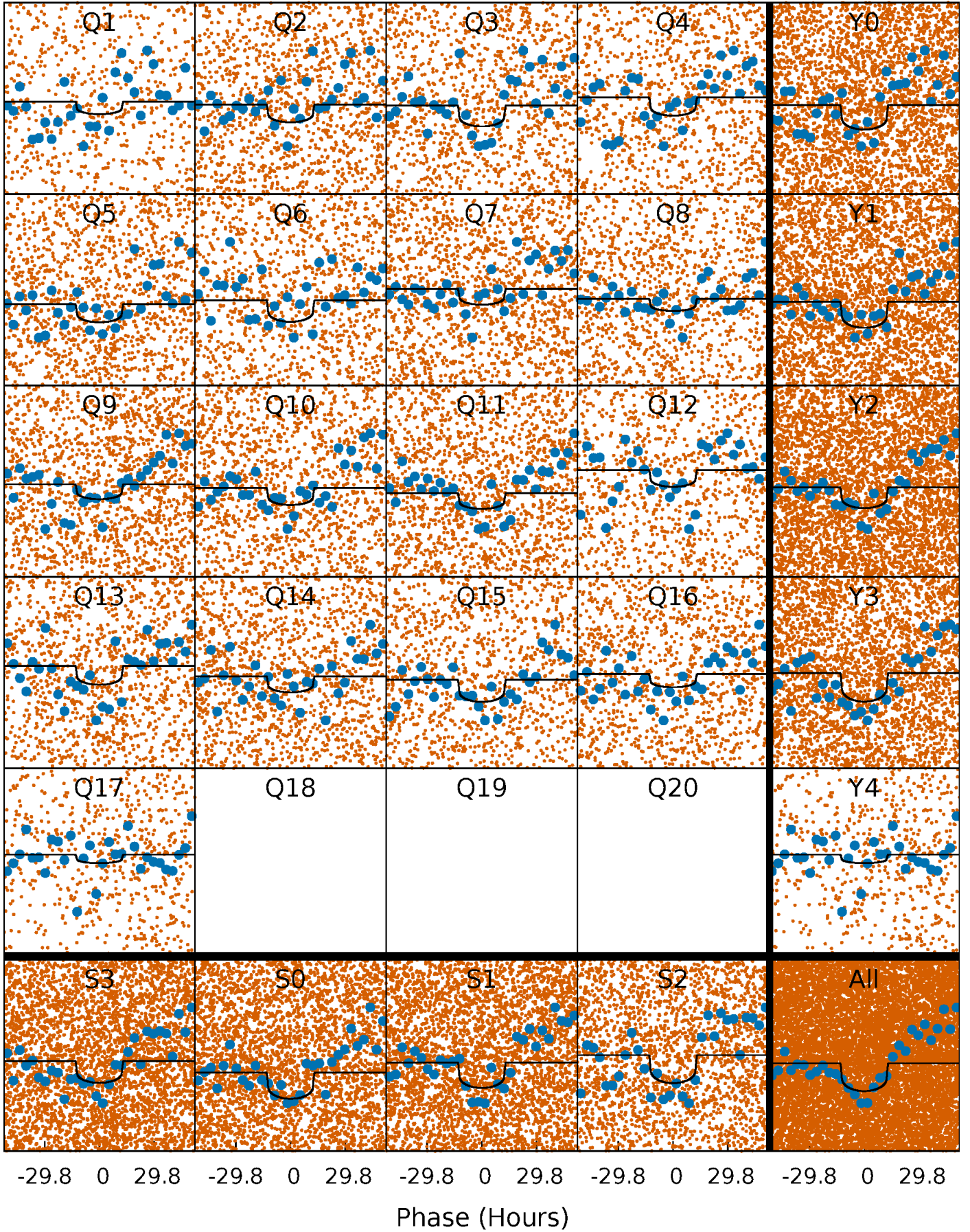
PDC Quarter-Phased Transit Curves

TCE 008757619-01 P= 6.708417 Days $T_0=137.362952$ (BKJD)



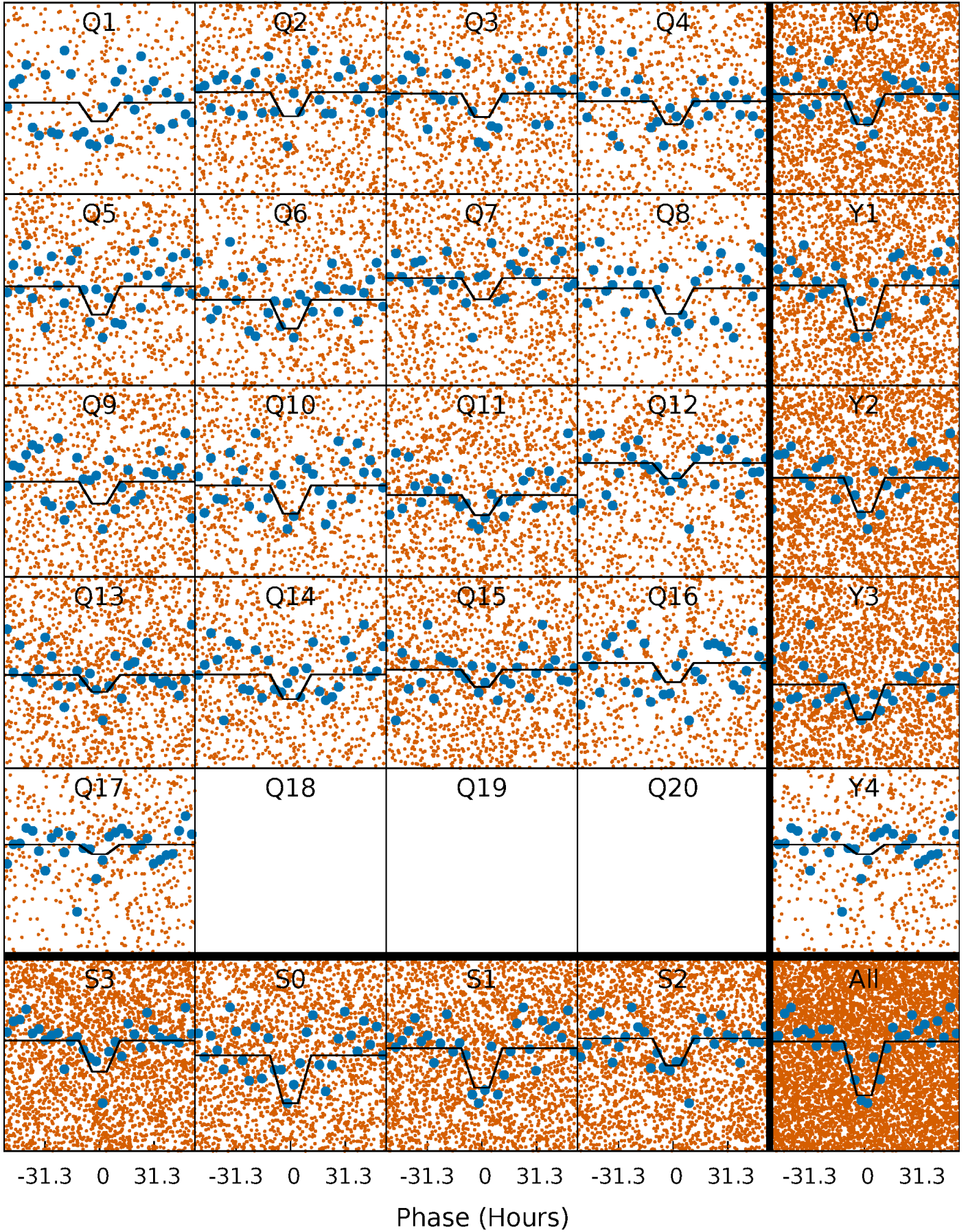
DV Quarter-Phased Transit Curves

TCE 008757619-01 P= 6.708417 Days $T_0=137.362952$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

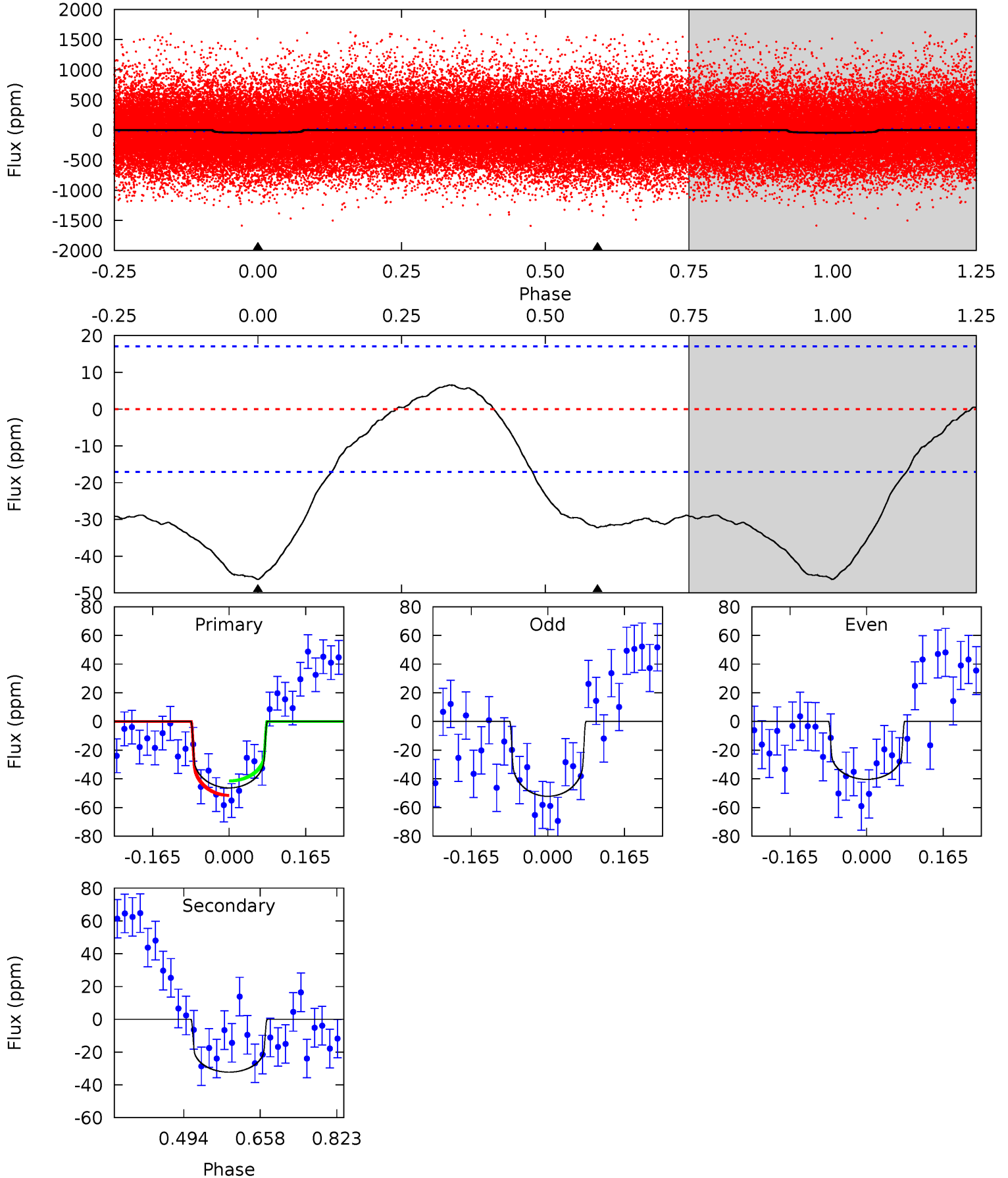
TCE 008757619-01 P= 6.708581 Days $T_0=137.356209$ (BKJD)



DV Model-Shift Uniqueness Test

008757619-01, P = 6.708417 Days, E = 130.654535 Days

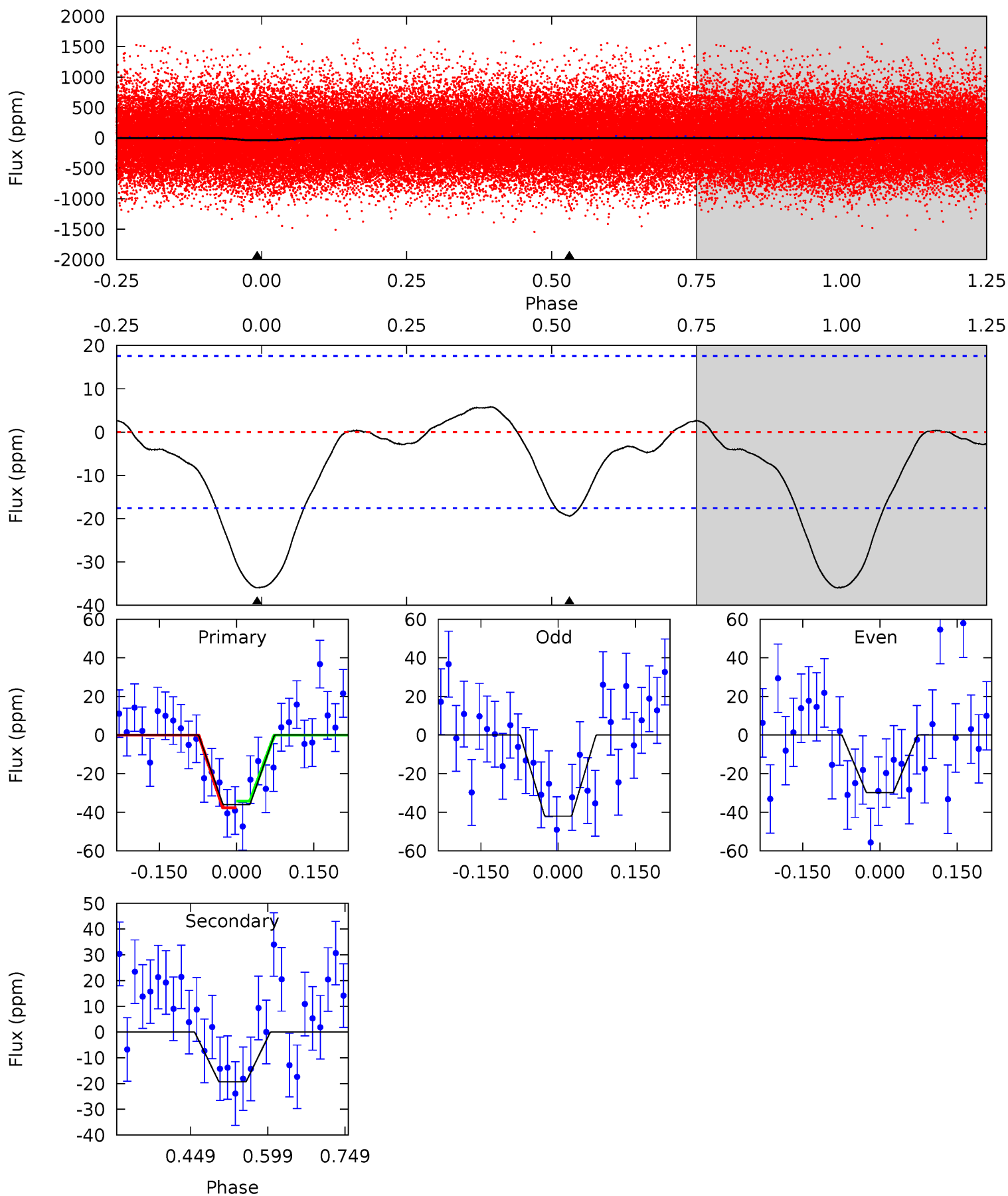
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	8.43	0	0	4.46	1.39	3.54	12.1	12.1	8.43	8.43	1.54	1.03	0.12	1.32



Alt Model-Shift Uniqueness Test

008757619-01, P = 6.708581 Days, E = 130.647628 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.16	4.93	0	0	4.48	1.44	0.70	9.16	9.16	4.93	4.93	1.56	1.20	0.14	0.44



Stellar Parameters For KIC 008757619

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5481^{+166}_{-149}	$4.413^{+0.162}_{-0.216}$	$-0.220^{+0.300}_{-0.300}$	$0.917^{+0.241}_{-0.161}$	$0.795^{+0.120}_{-0.065}$	$1.453^{+1.040}_{-0.738}$
	+3%/-3%	+4%/-5%	+136%/-136%	+26%/-18%	+15%/-8%	+72%/-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 008757619-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-32 ± 4	$0.69^{+0.22}_{-0.17}$	1282^{+98}_{-78}	5056^{+657}_{-458}	155^{+126}_{-63}
Alt.	-19 ± 4	$0.63^{+0.19}_{-0.18}$	1285^{+96}_{-80}	4757^{+670}_{-496}	111^{+103}_{-47}

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 $A_{obs} \gg 1.0$

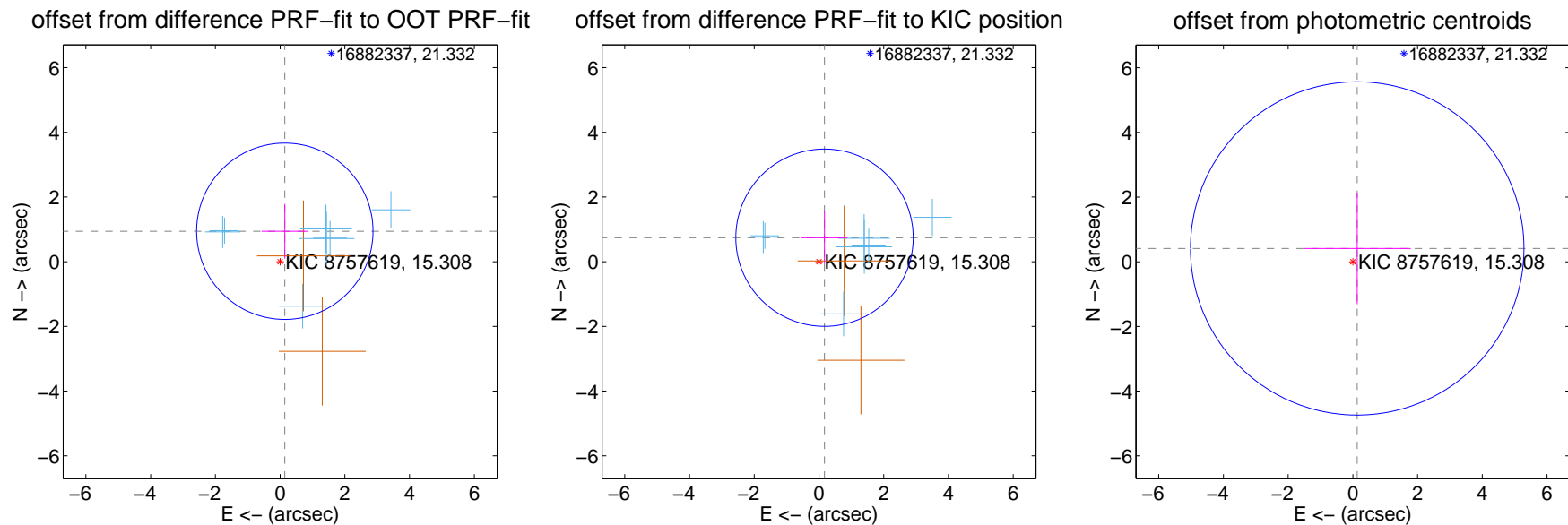
DV Centroid Data

Supplemental centroid analysis for 008757619-01. Kepler magnitude: 15.31. Transit SNR 7.27

There are 7 quarters with good PRF difference image offsets

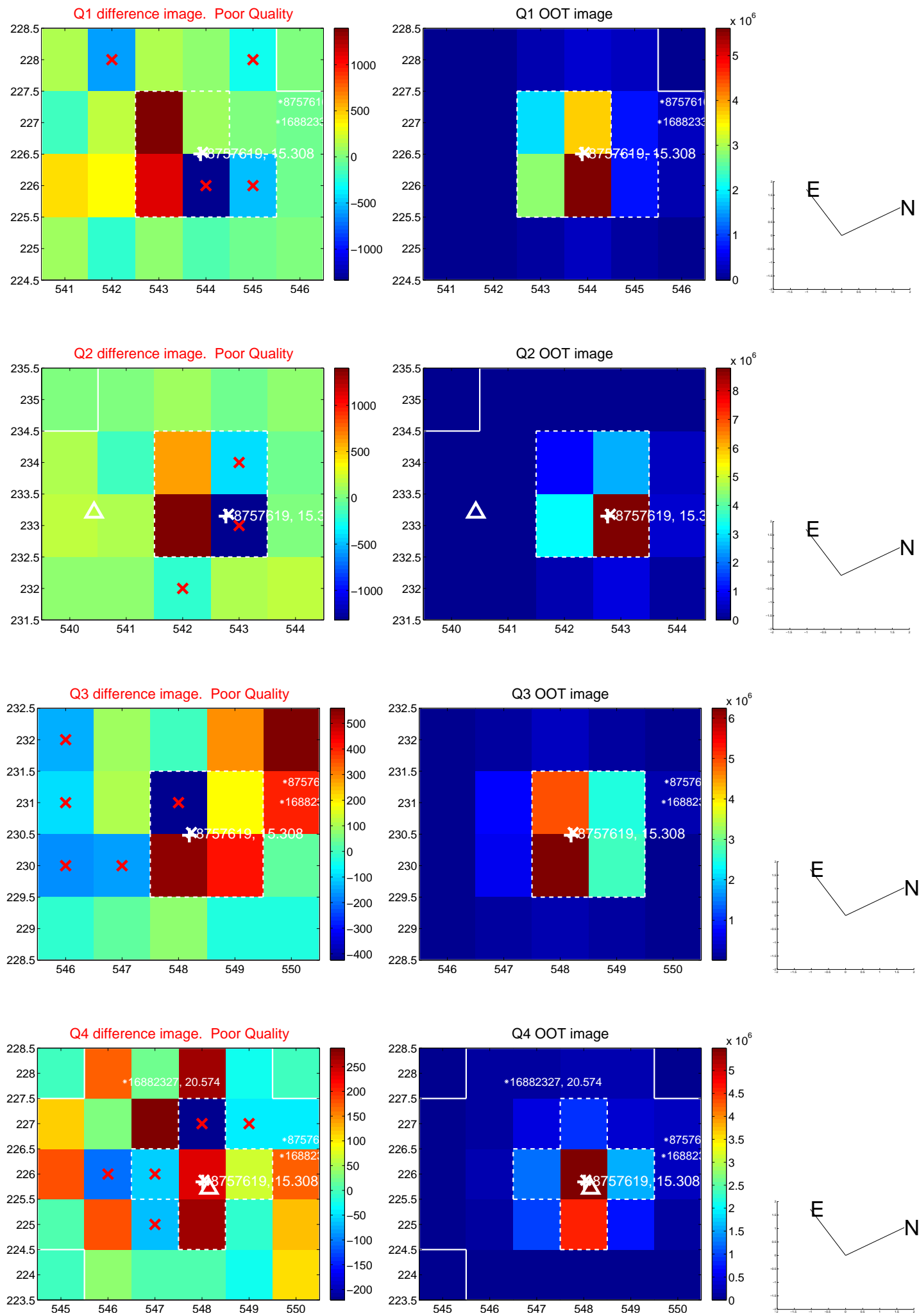
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.952 ± 0.909	1.05	-0.145 ± 0.714	0.941 ± 0.845
PRF-fit source offset from KIC position	0.762 ± 0.914	0.83	-0.171 ± 0.710	0.742 ± 0.816
photometric centroid source offset	0.43 ± 1.72	0.25	-0.13 ± 1.66	0.41 ± 1.72

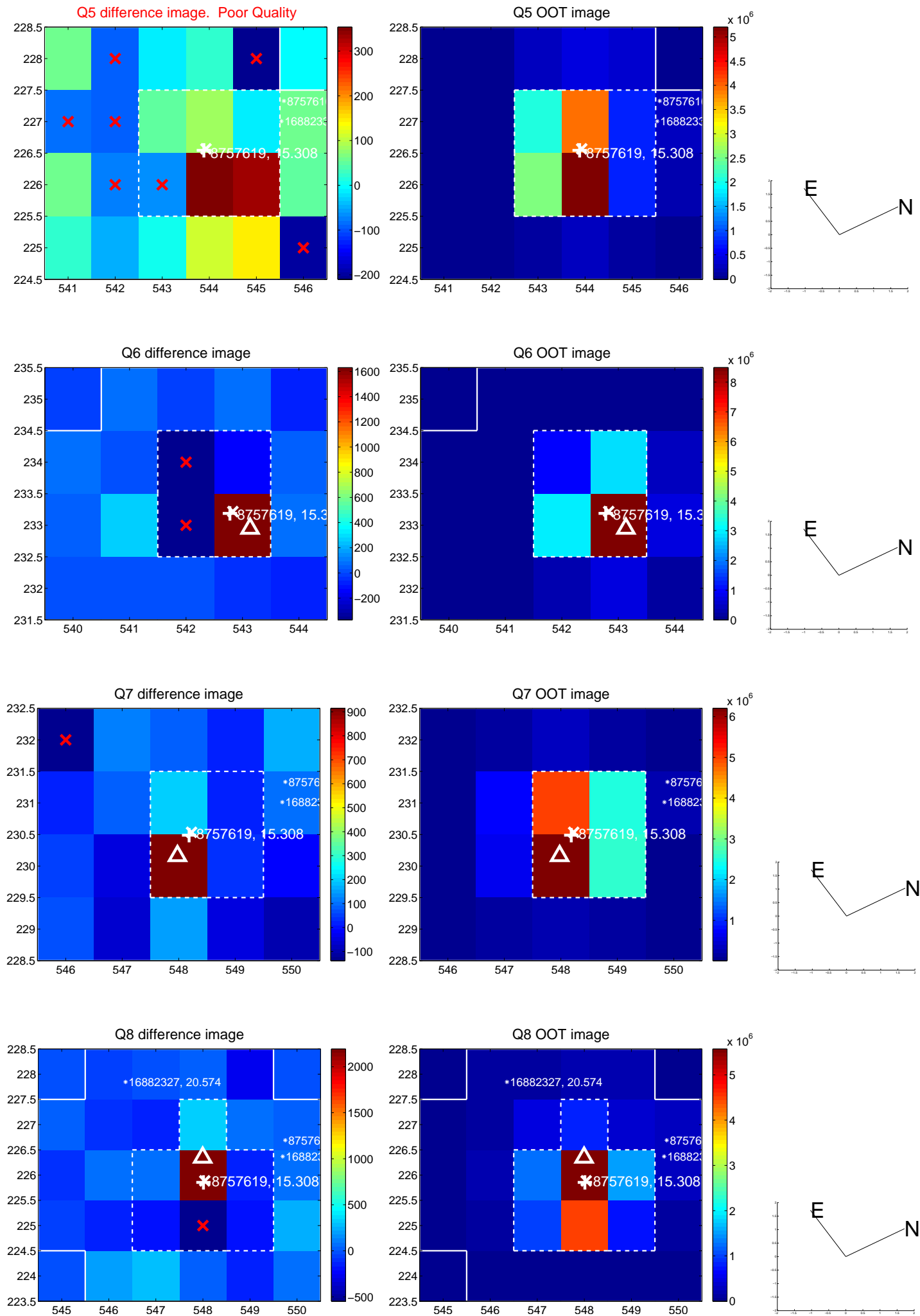


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

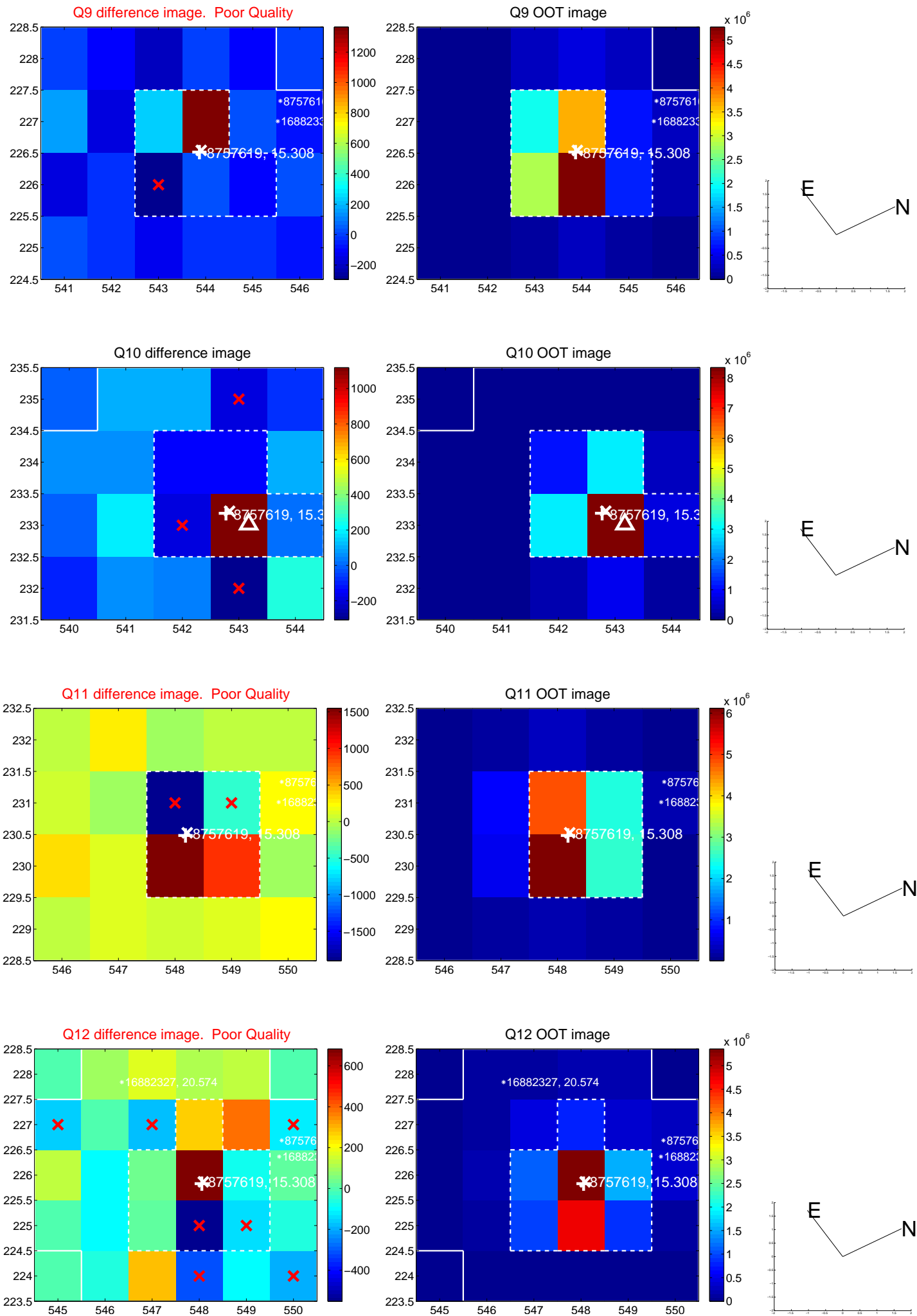
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



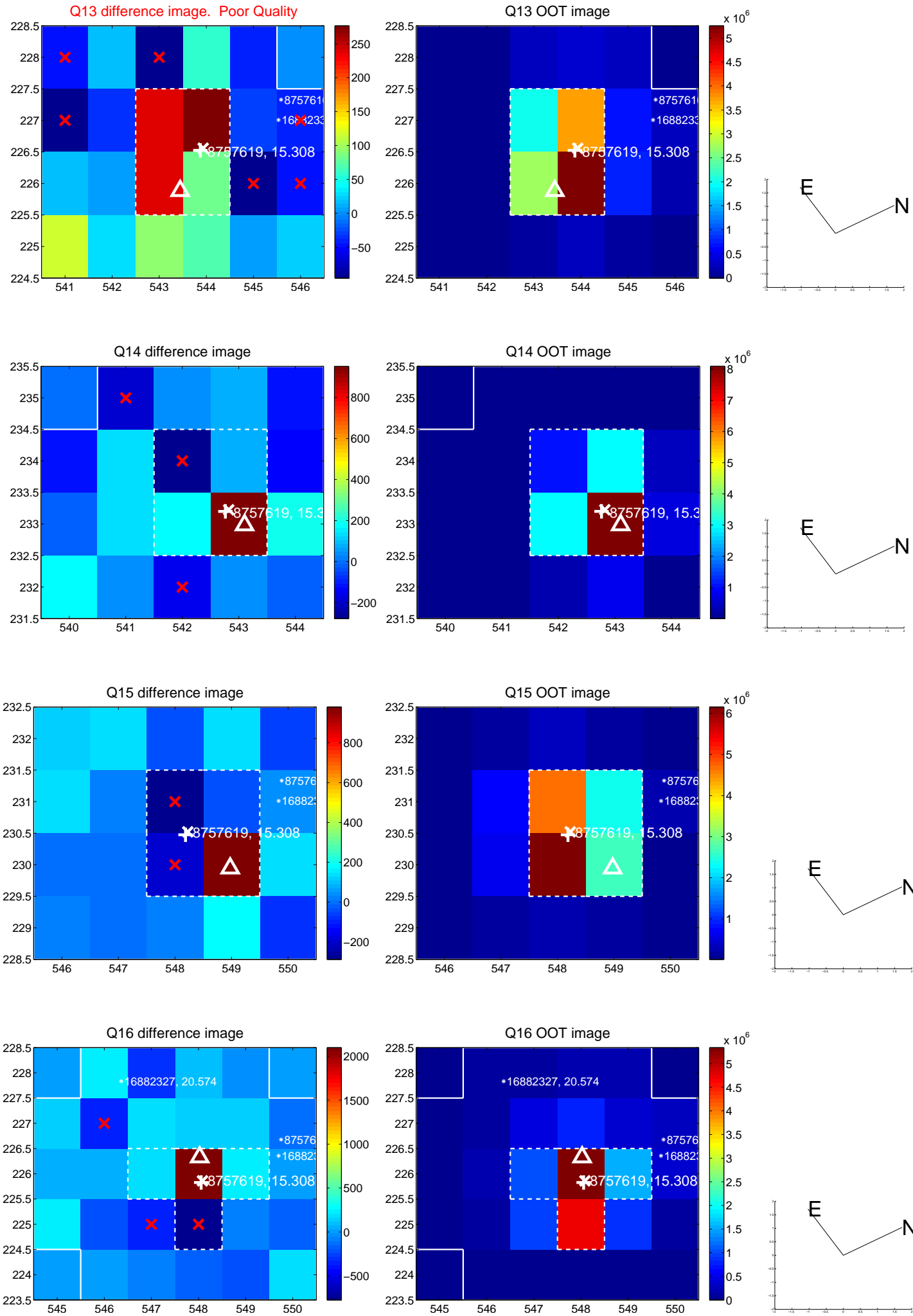
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



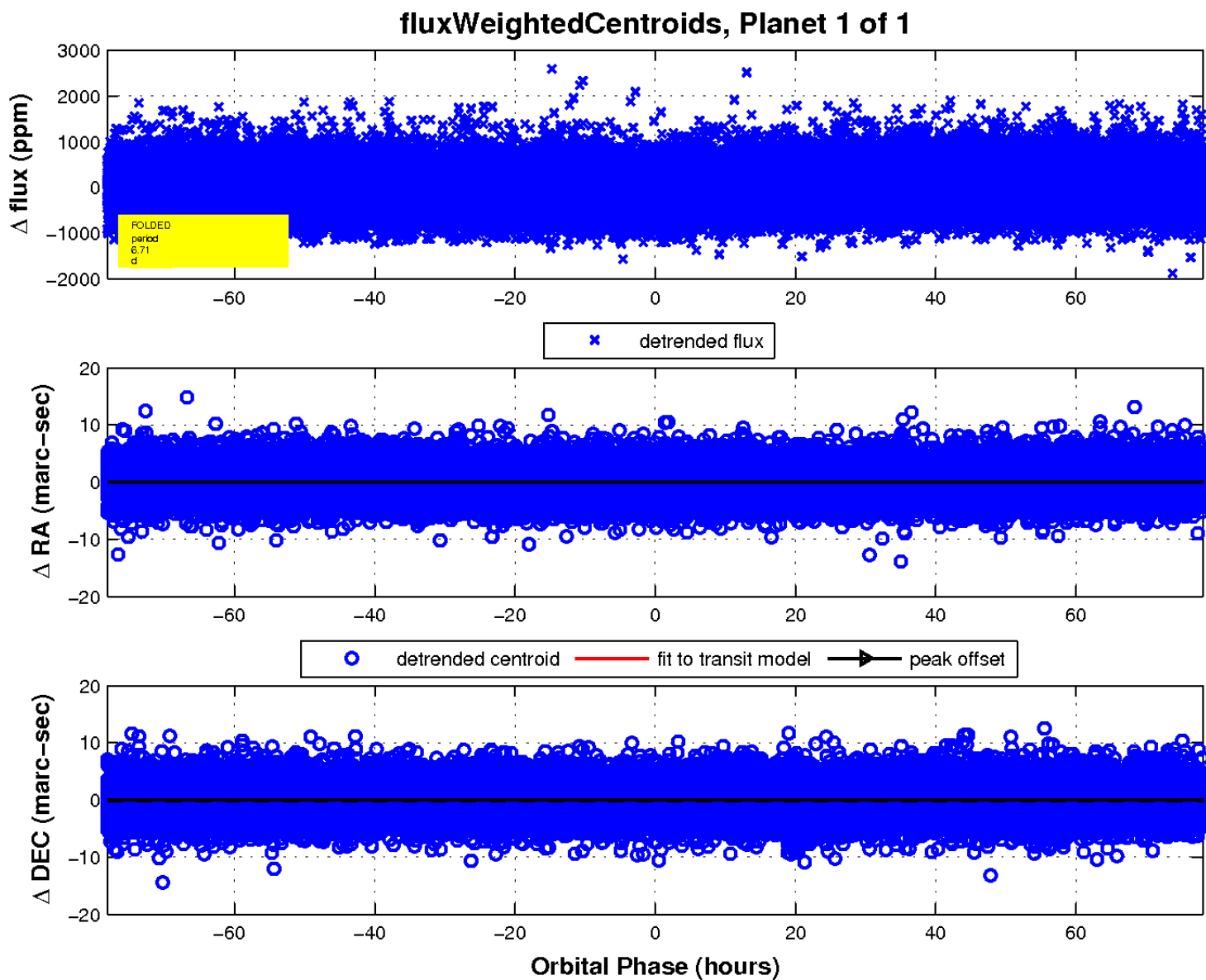
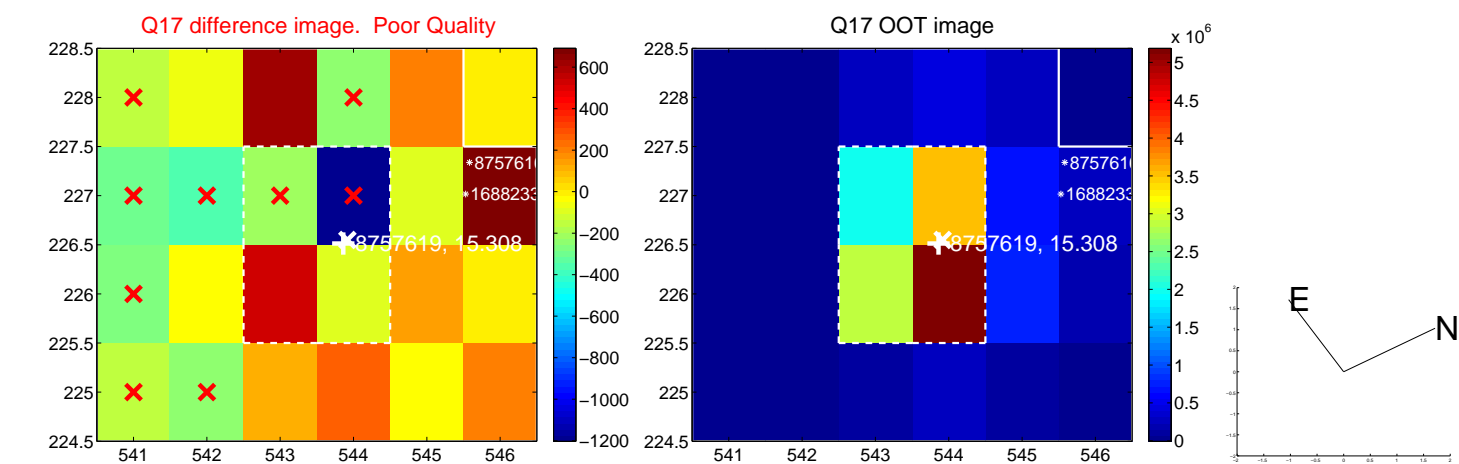
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

