

KIC 007919516

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})
007919516-01	OBS	7857.01	0.575444	132.066274	26.7	0.856	7.9	10.0	2.40	6215	1.47	34645.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007919516-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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

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

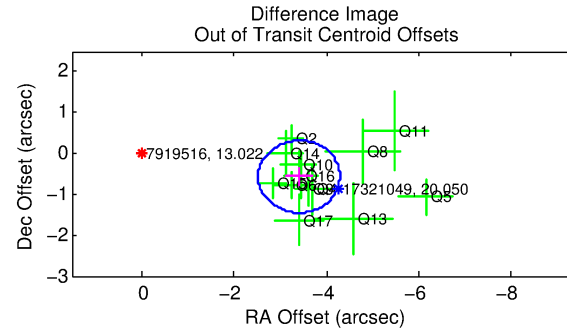
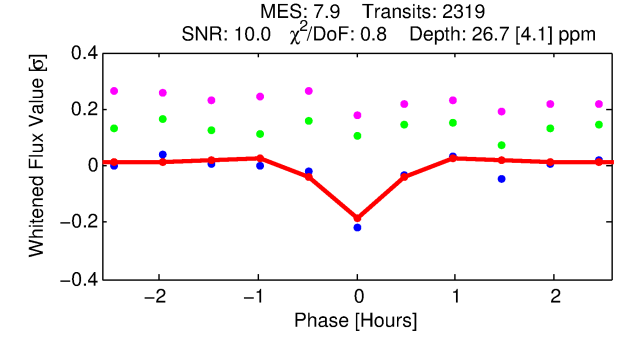
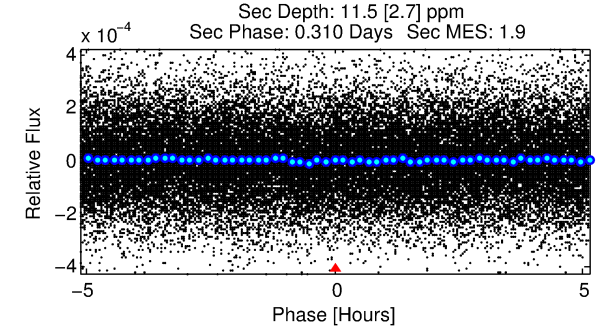
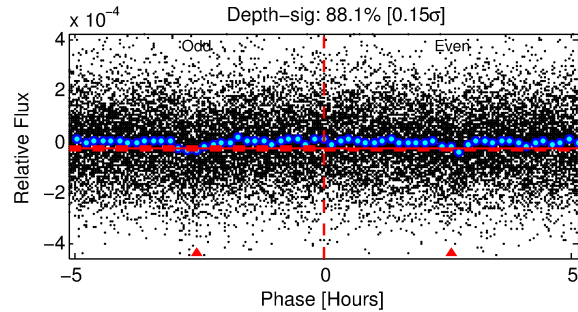
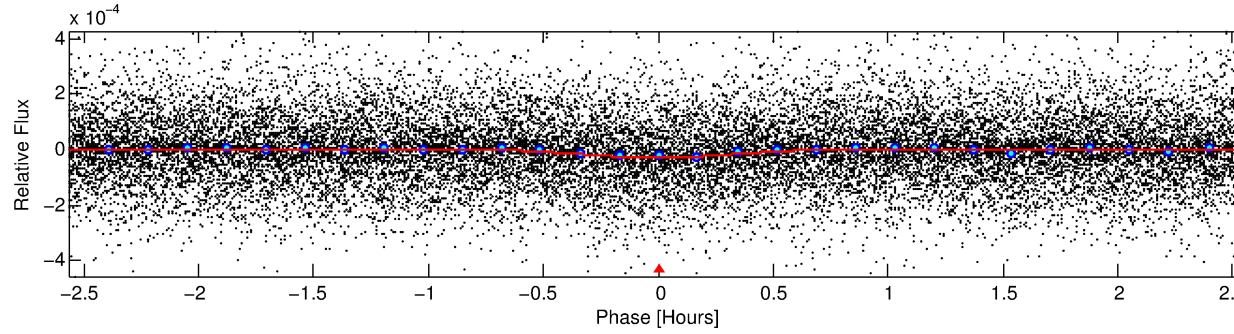
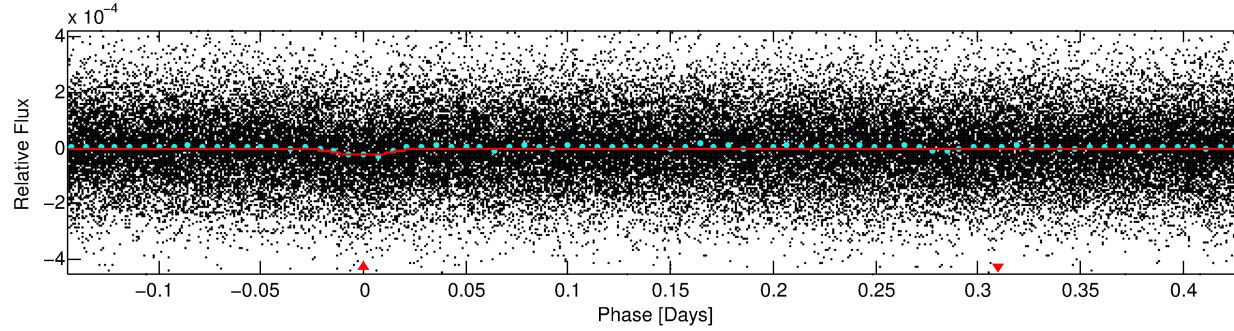
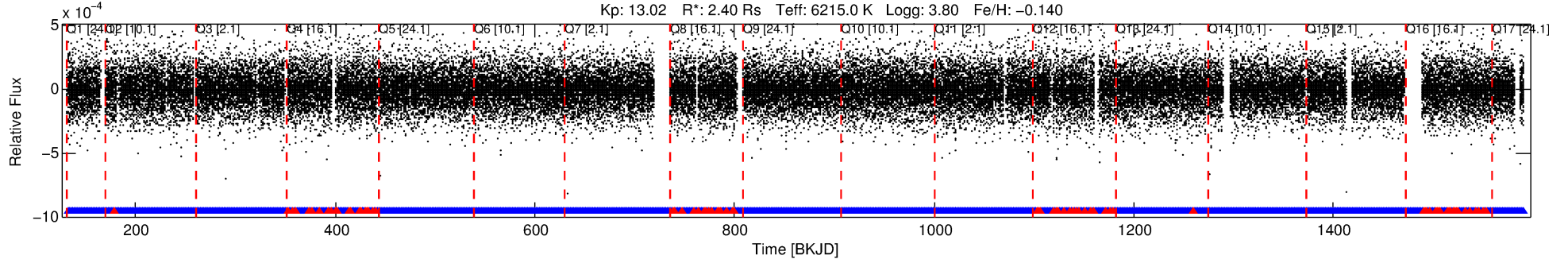
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007919516-01

No Significant Match Found

DV One-Page Summary

KIC: 7919516 Candidate: 1 of 1 Period: 0.575 d



DV Fit Results:

Period = 0.57544 [0.00001] d
Epoch = 132.0663 [0.0014] BKJD
Rp/R* = 0.0056 [0.0013]
a/R* = 2.49 [2.58]
b = 0.90 [0.26]
Seff = 34645.42 [18586.98]
Teq = 3479 [467] K
Rp = 1.47 [0.64] Re
a = 0.0149 [0.0050] AU
Ag = 0.65 [0.48] [-0.73 σ]
Teffp = 4832 [647] K [1.70 σ]

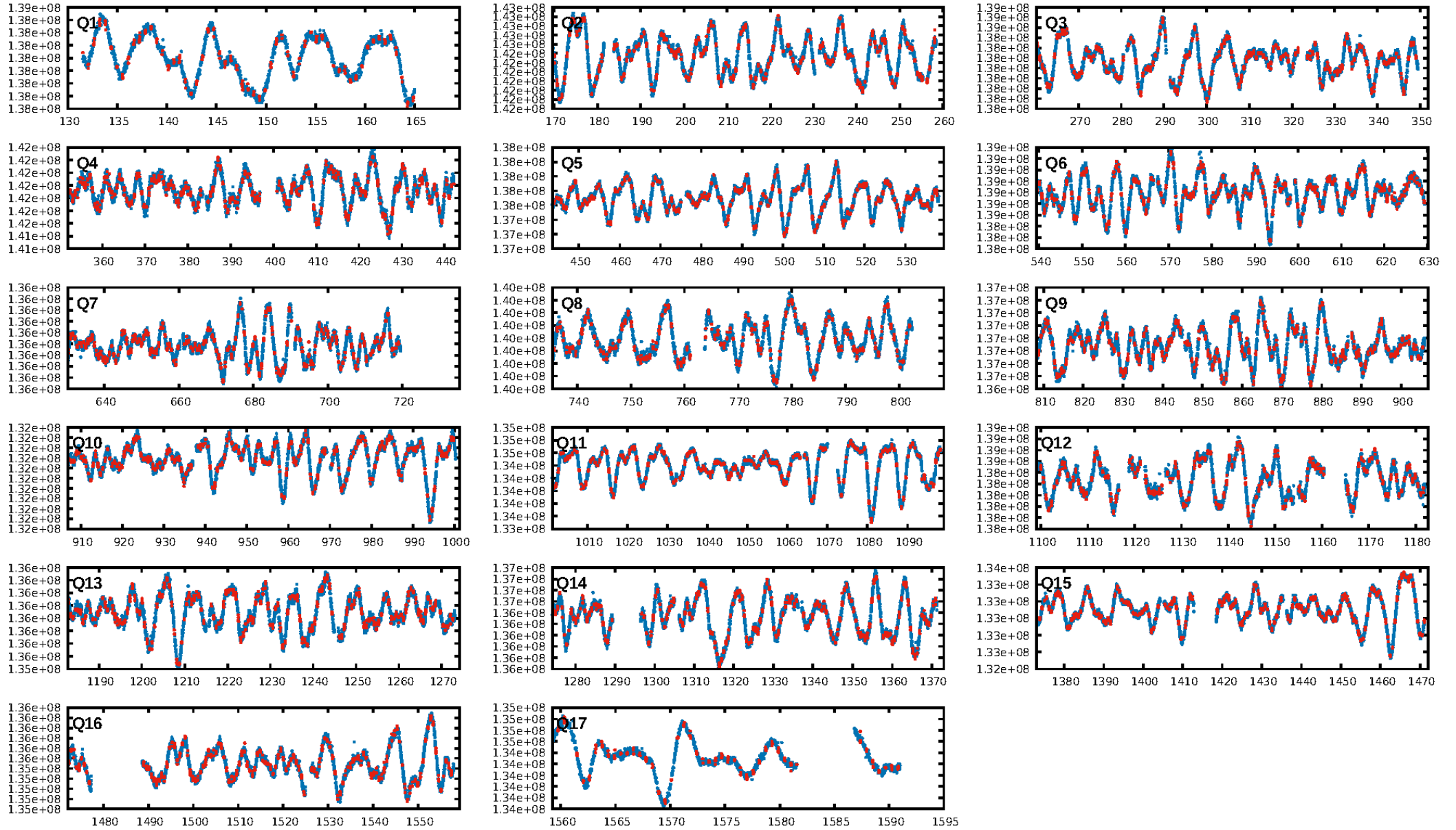
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.87e-14
RollingBand-fgt: 0.96 [2137/2215]
GhostDiagnostic-chr: -7.601
Centroid-sig: 0.0%
Centroid-so: 6.586 arcsec [5.10 σ]
OotOffset-rm: 3.454 arcsec [11.73 σ]
KicOffset-rm: 3.099 arcsec [10.56 σ]
OotOffset-st: 4/2/3/4 [13]
KicOffset-st: 4/2/3/4 [13]
DiffImageQuality-fgm: 0.77 [10/13]
DiffImageOverlap-fno: 1.00 [17/17]

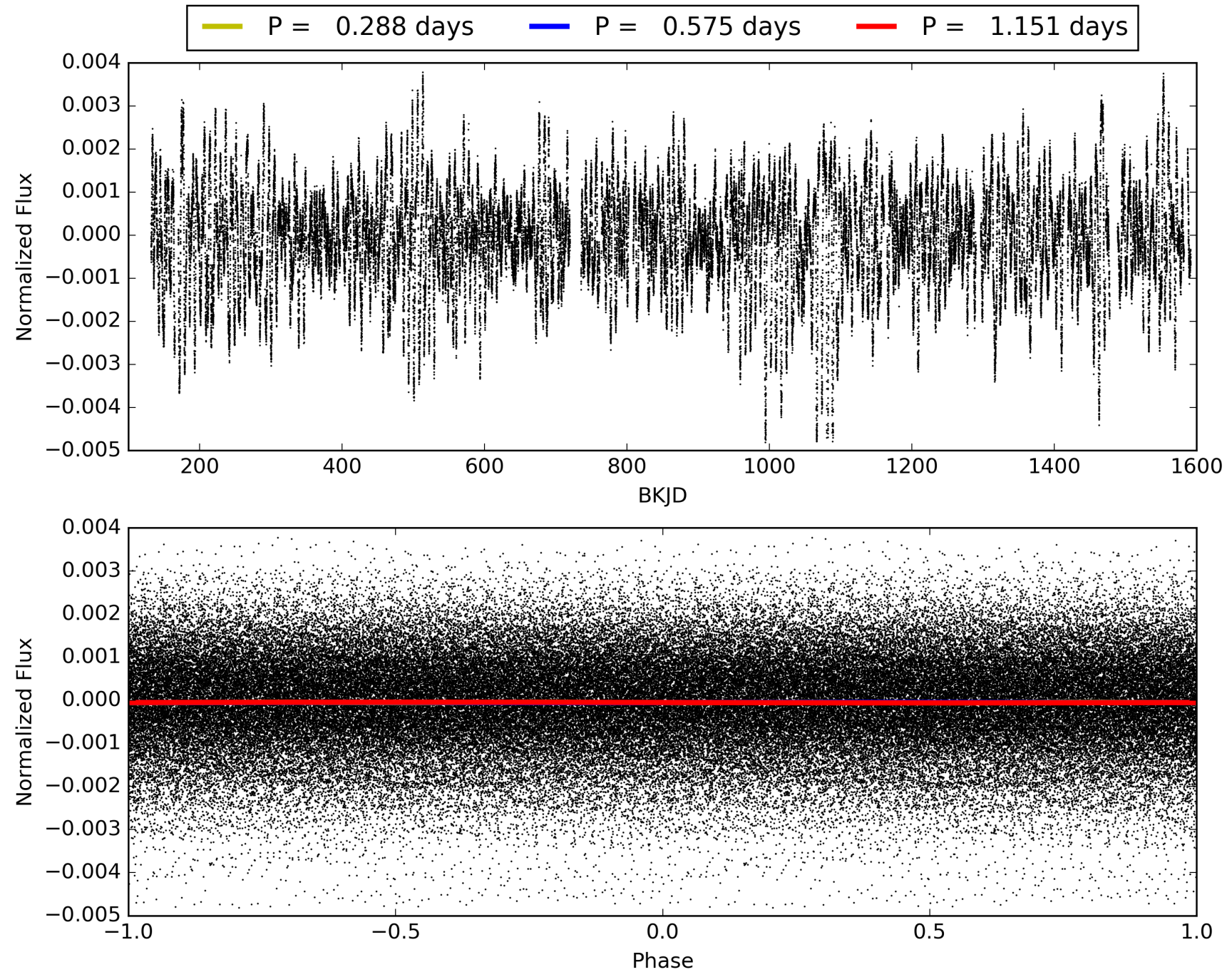
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:15:33 Z

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

TCE 007919516-01, PDC Light Curves

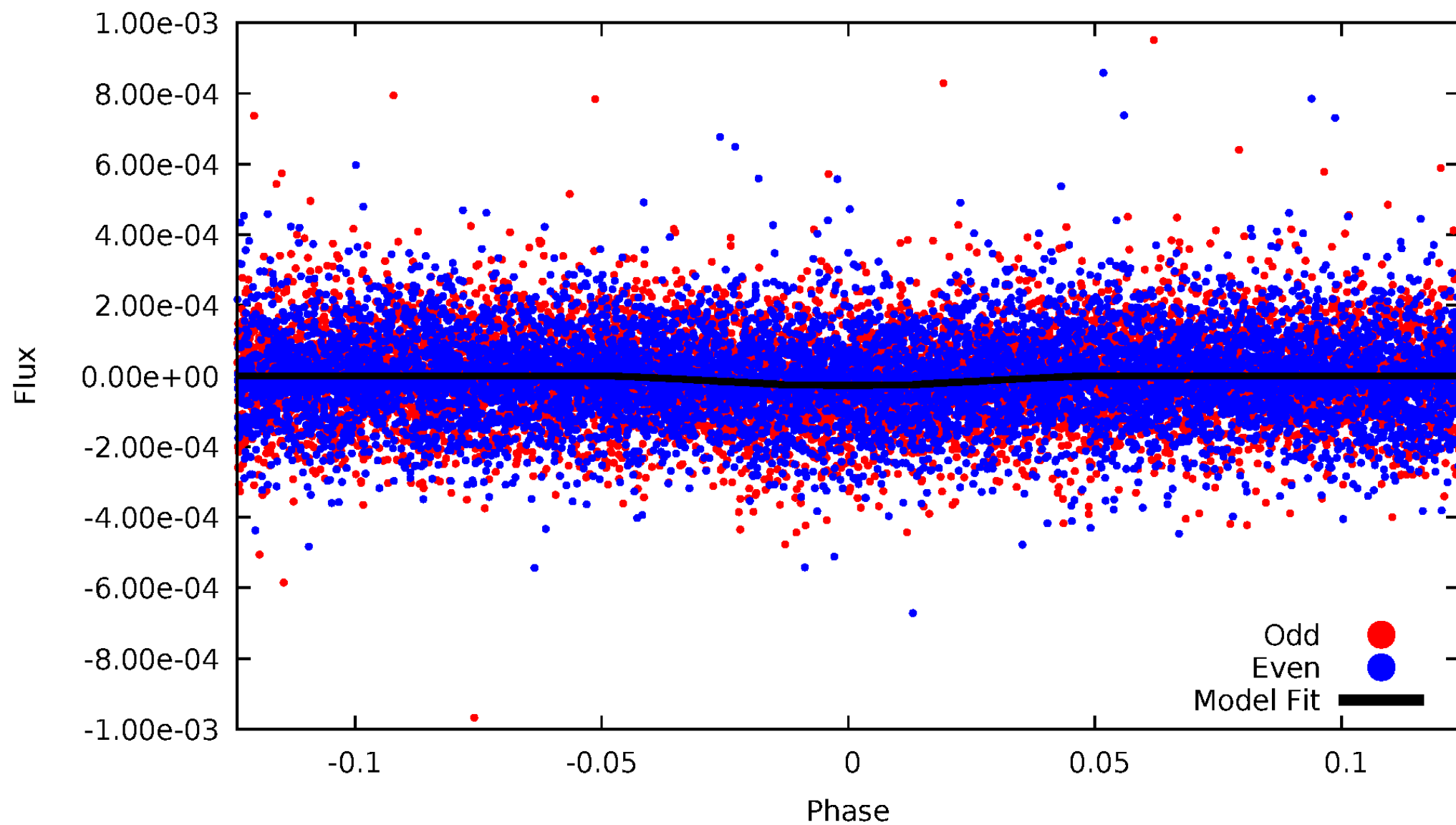


TCE 007919516-01



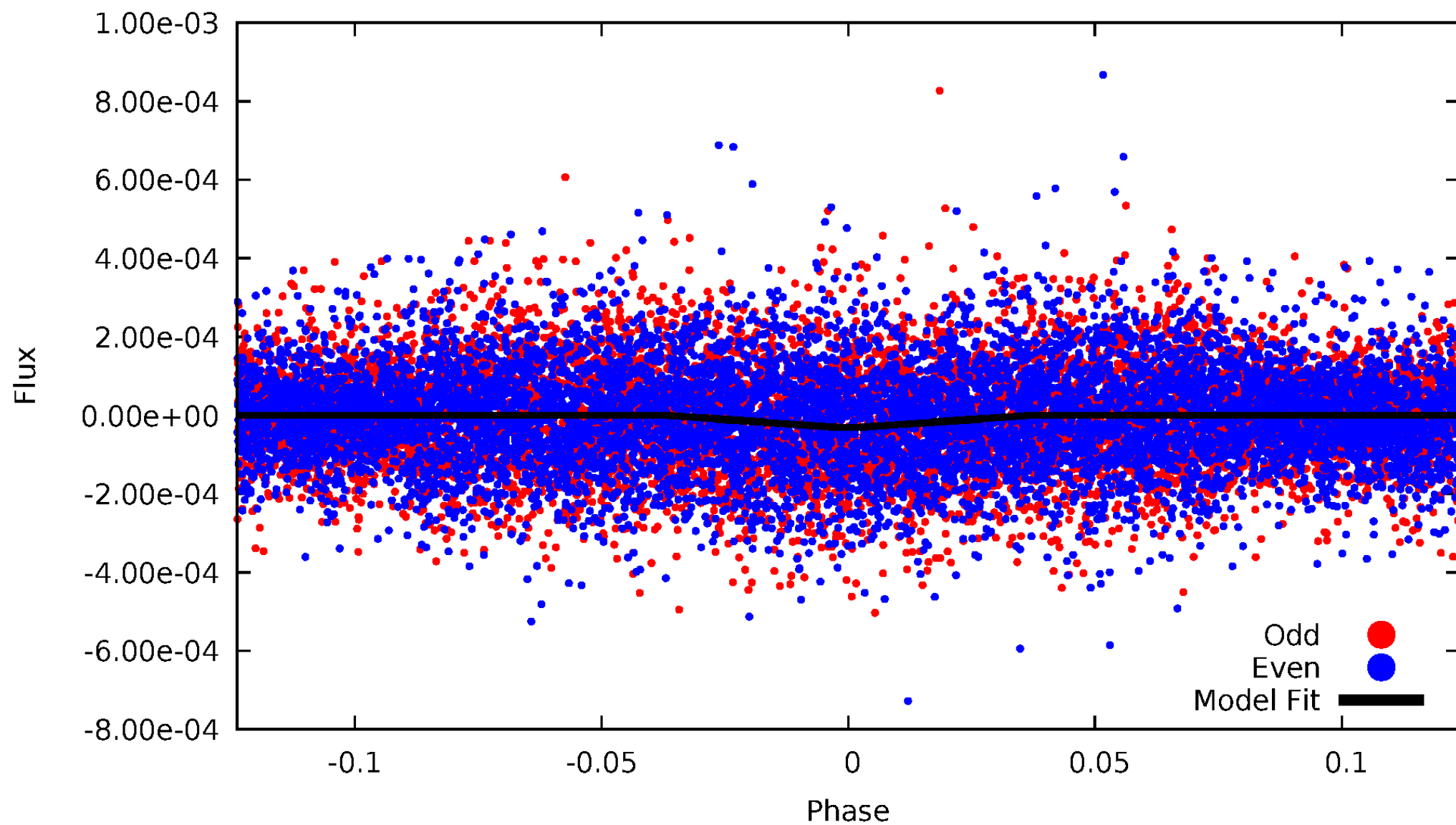
DV Odd/Even

TCE 007919516-01

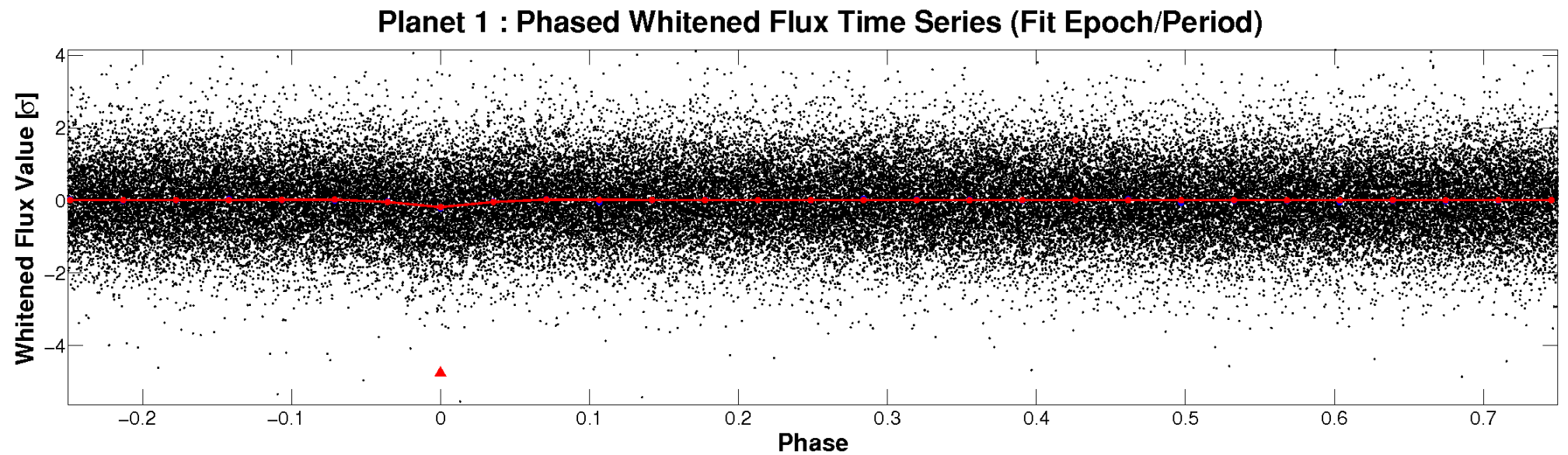
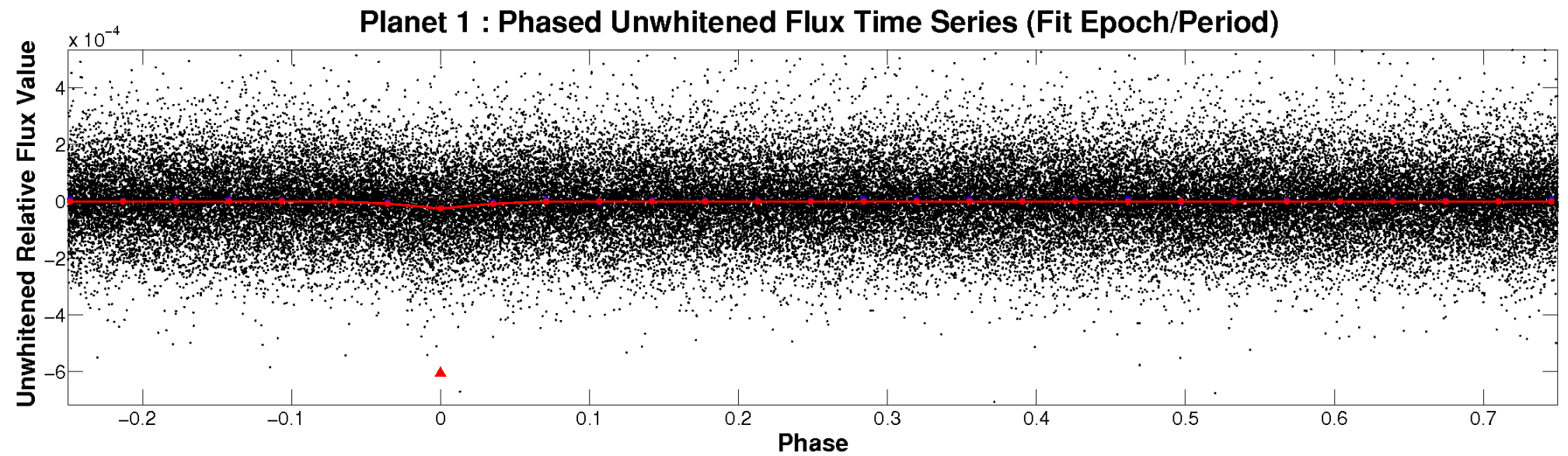


ALT Odd/Even

TCE 007919516-01

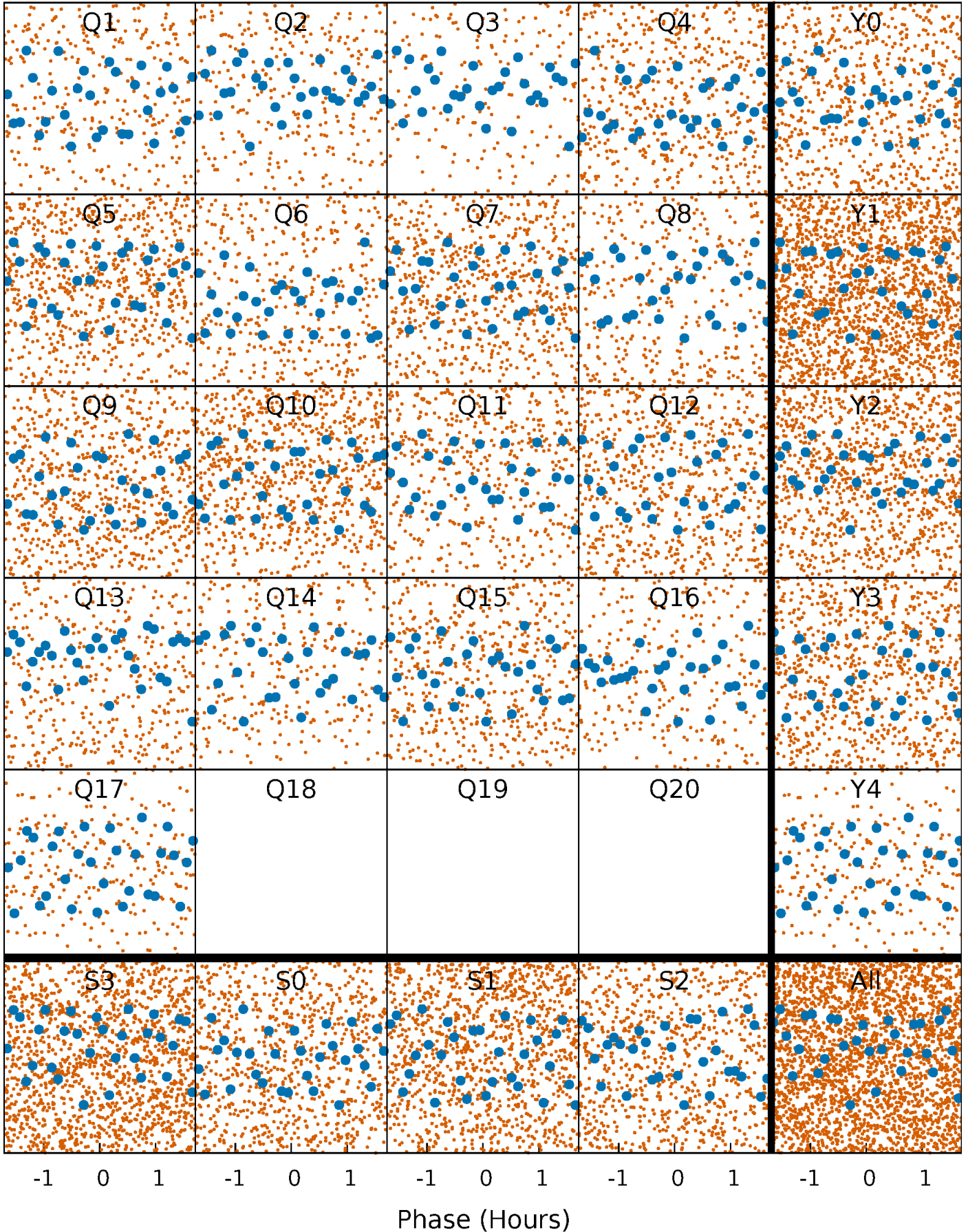


Non-Whitened Vs. Whitened Light Curve



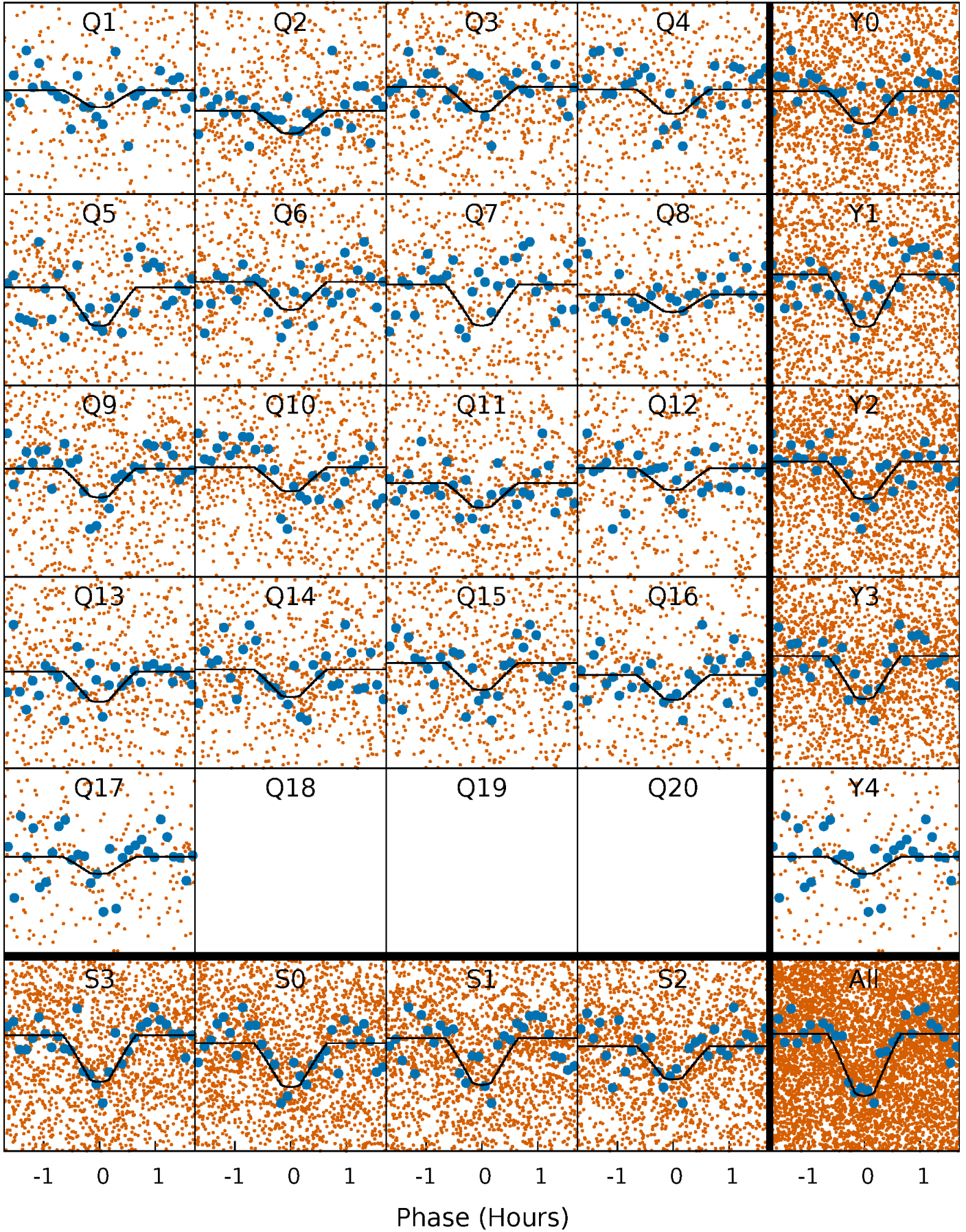
PDC Quarter-Phased Transit Curves

TCE 007919516-01 P= 0.575444 Days $T_0=132.066274$ (BKJD)



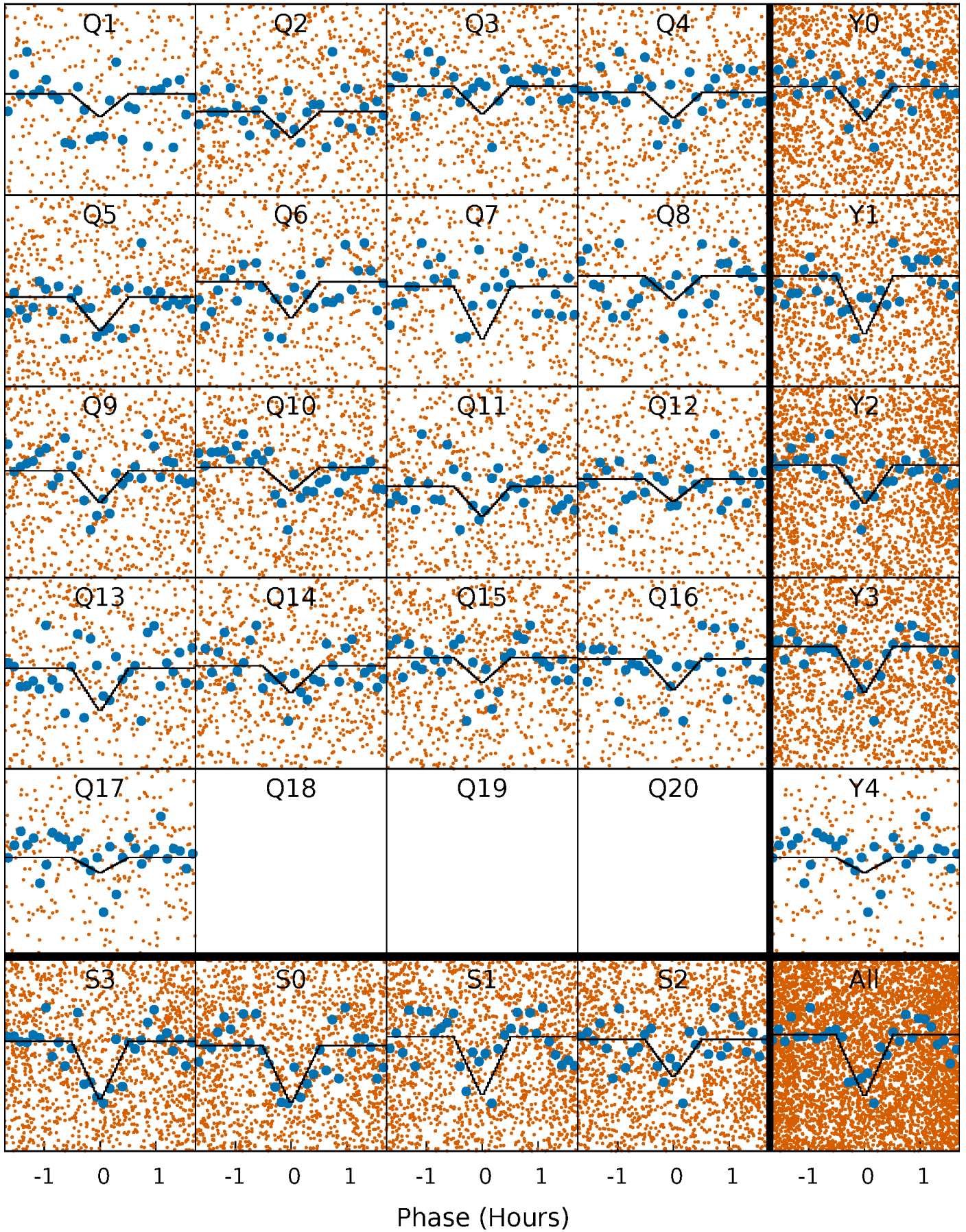
DV Quarter-Phased Transit Curves

TCE 007919516-01 P= 0.575444 Days $T_0=132.066274$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

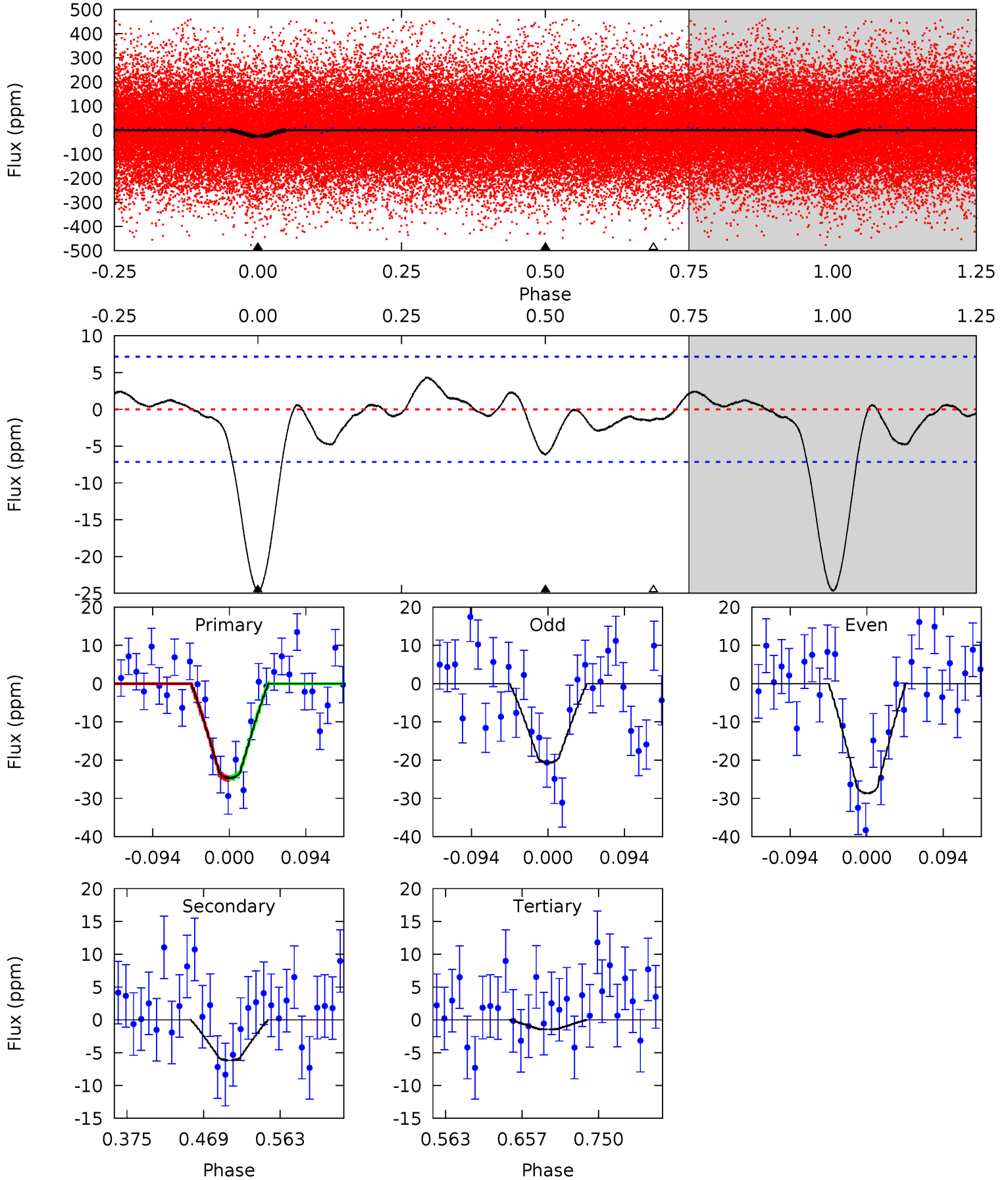
TCE 007919516-01 P= 0.575445 Days $T_0=132.066284$ (BKJD)



DV Model-Shift Uniqueness Test

007919516-01, P = 0.575444 Days, E = 131.490830 Days

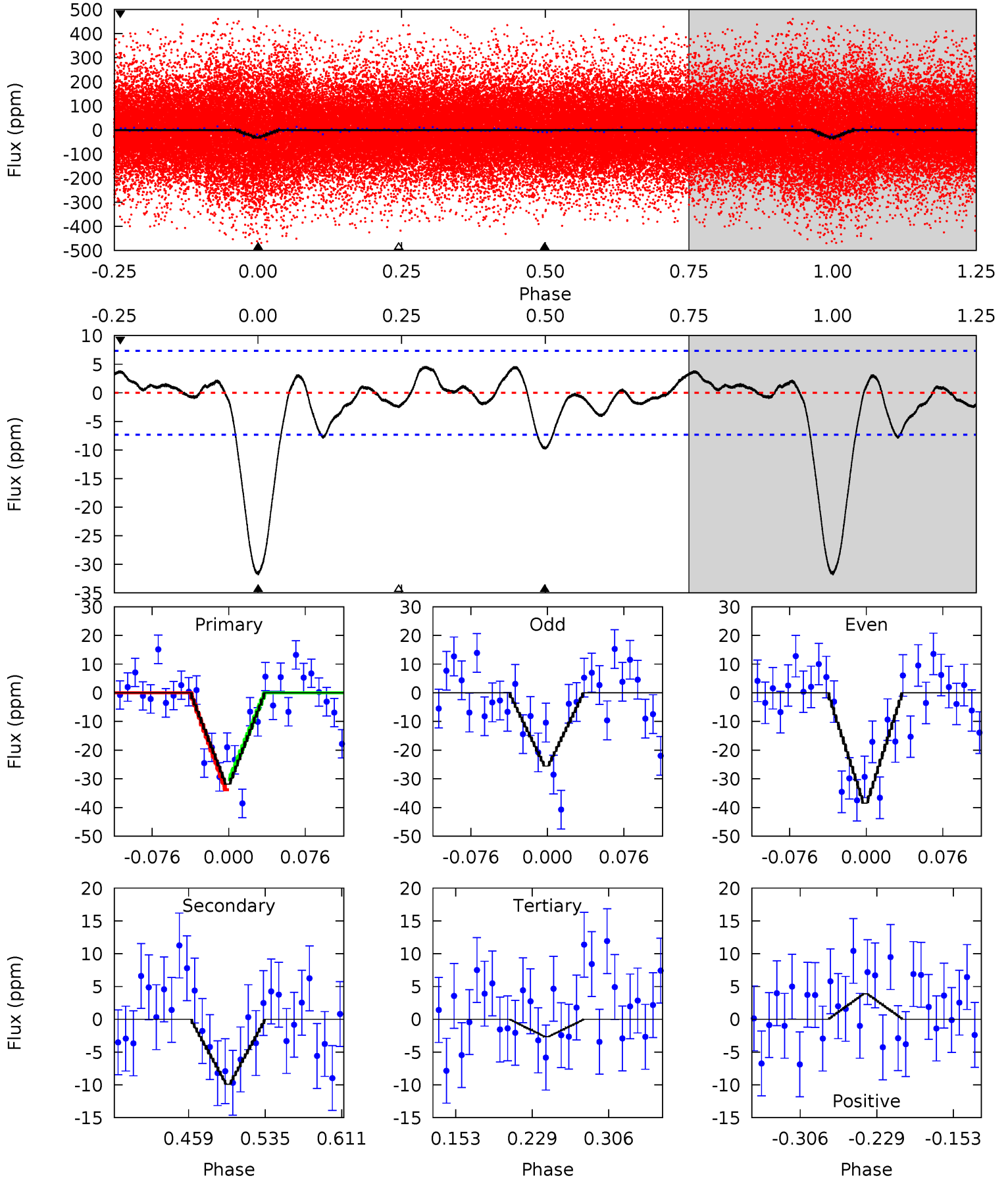
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	3.95	0.93	0	4.58	1.68	1.24	14.9	15.8	3.02	3.95	2.57	0.92	0.15	0.05



Alt Model-Shift Uniqueness Test

007919516-01, P = 0.575445 Days, E = 131.490839 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	6.23	1.68	2.45	4.62	1.77	1.46	18.4	17.6	4.56	3.79	4.05	1.03	0.13	1.10



Stellar Parameters For KIC 007919516

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6215^{+171}_{-191}	$3.802^{+0.300}_{-0.100}$	$-0.140^{+0.300}_{-0.250}$	$2.396^{+0.443}_{-0.885}$	$1.327^{+0.218}_{-0.266}$	$0.136^{+0.291}_{-0.044}$
	+3%/-3%	+8%/-3%	+214%/-179%	+18%/-37%	+16%/-20%	+214%/-32%
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 007919516-01 / KOI 7857.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 2	$1.36^{+0.44}_{-0.39}$	4761^{+299}_{-435}	3375^{+1086}_{-6781}	$0.401^{+0.428}_{-0.187}$
Alt.	-10 ± 2	$1.38^{+0.41}_{-0.39}$	4760^{+312}_{-397}	4224^{+807}_{-930}	$0.646^{+0.582}_{-0.274}$

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 $A_{obs} \gg 1.0$

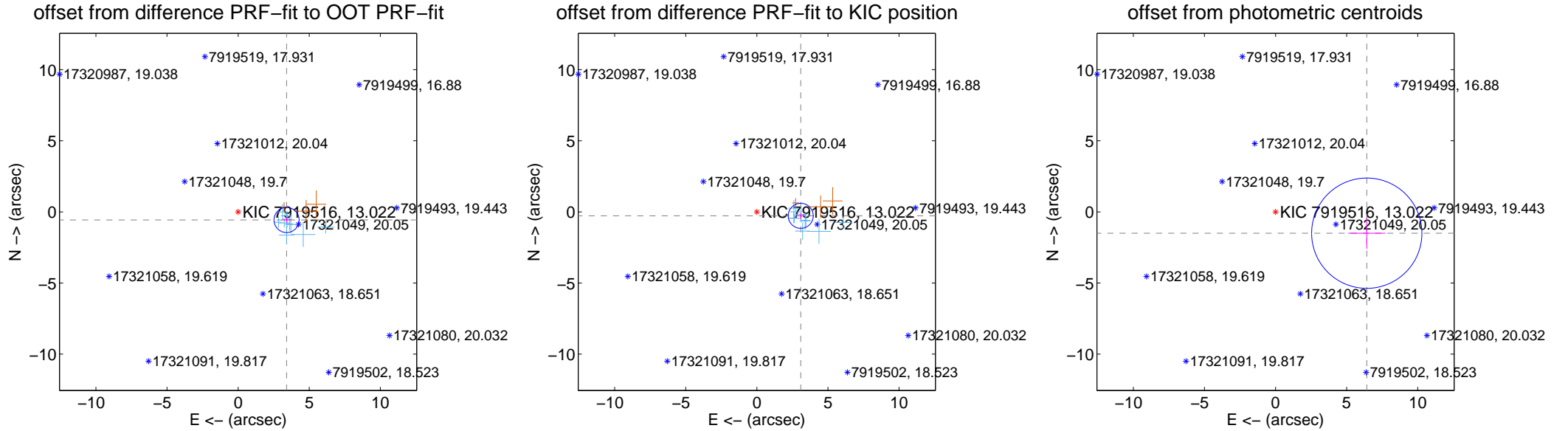
DV Centroid Data

Supplemental centroid analysis for 007919516-01. Kepler magnitude: 13.02. Transit SNR 10.04

There are 10 quarters with good PRF difference image offsets

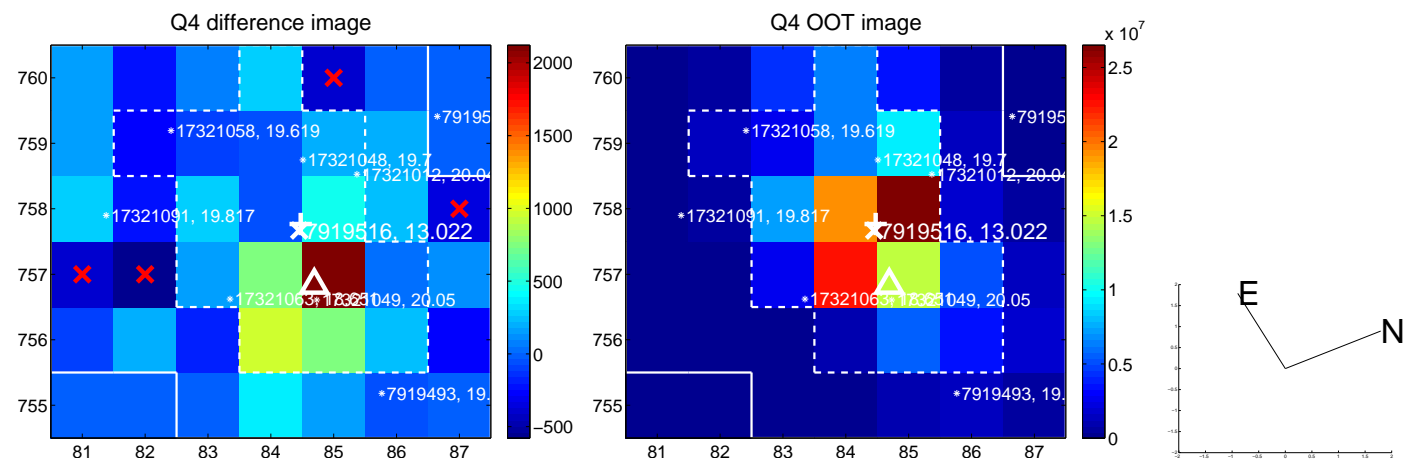
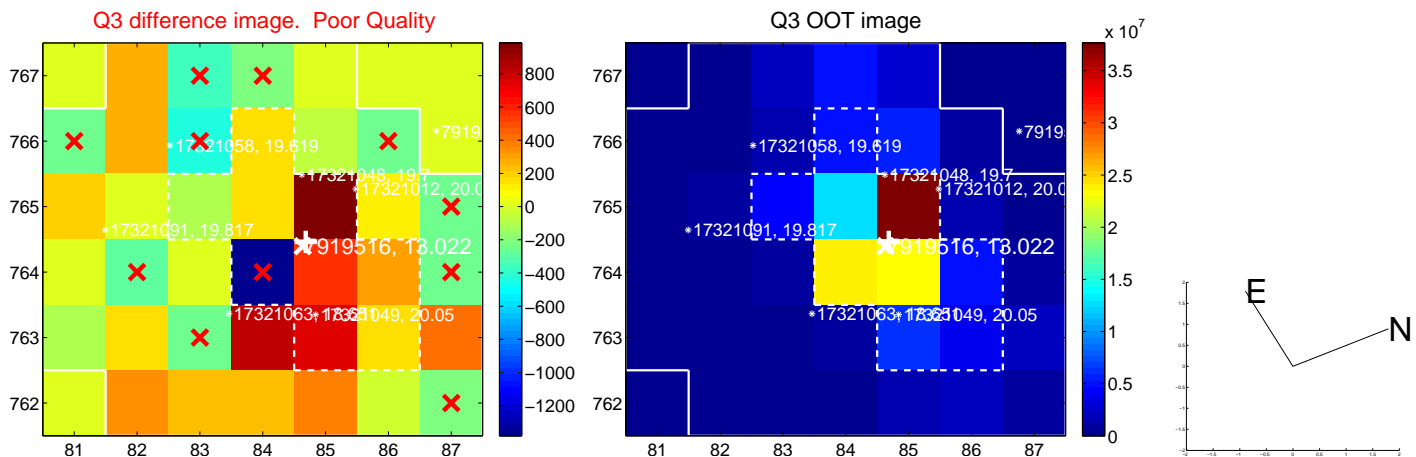
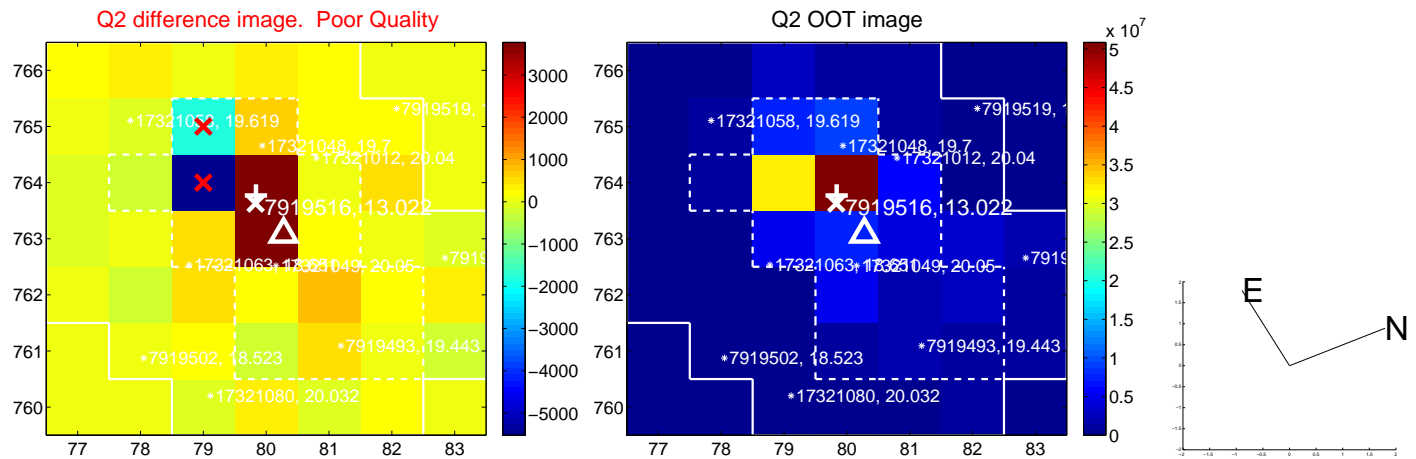
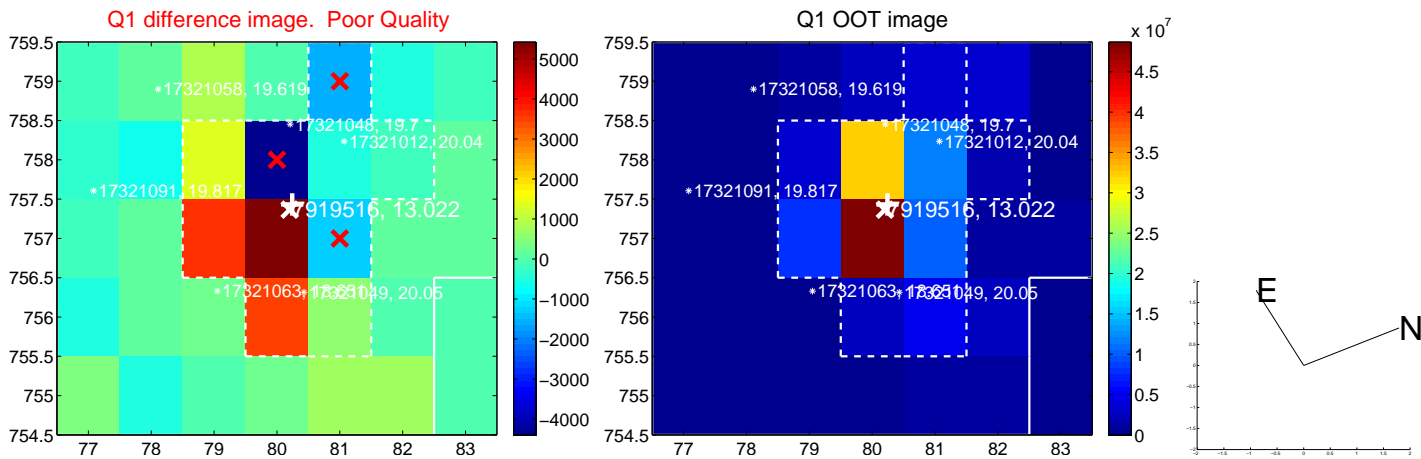
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.454 ± 0.294	11.73	-3.407 ± 0.293	-0.569 ± 0.199
PRF-fit source offset from KIC position	3.099 ± 0.293	10.56	-3.086 ± 0.293	-0.276 ± 0.189
photometric centroid source offset	6.59 ± 1.29	5.10	-6.41 ± 1.30	-1.50 ± 1.10

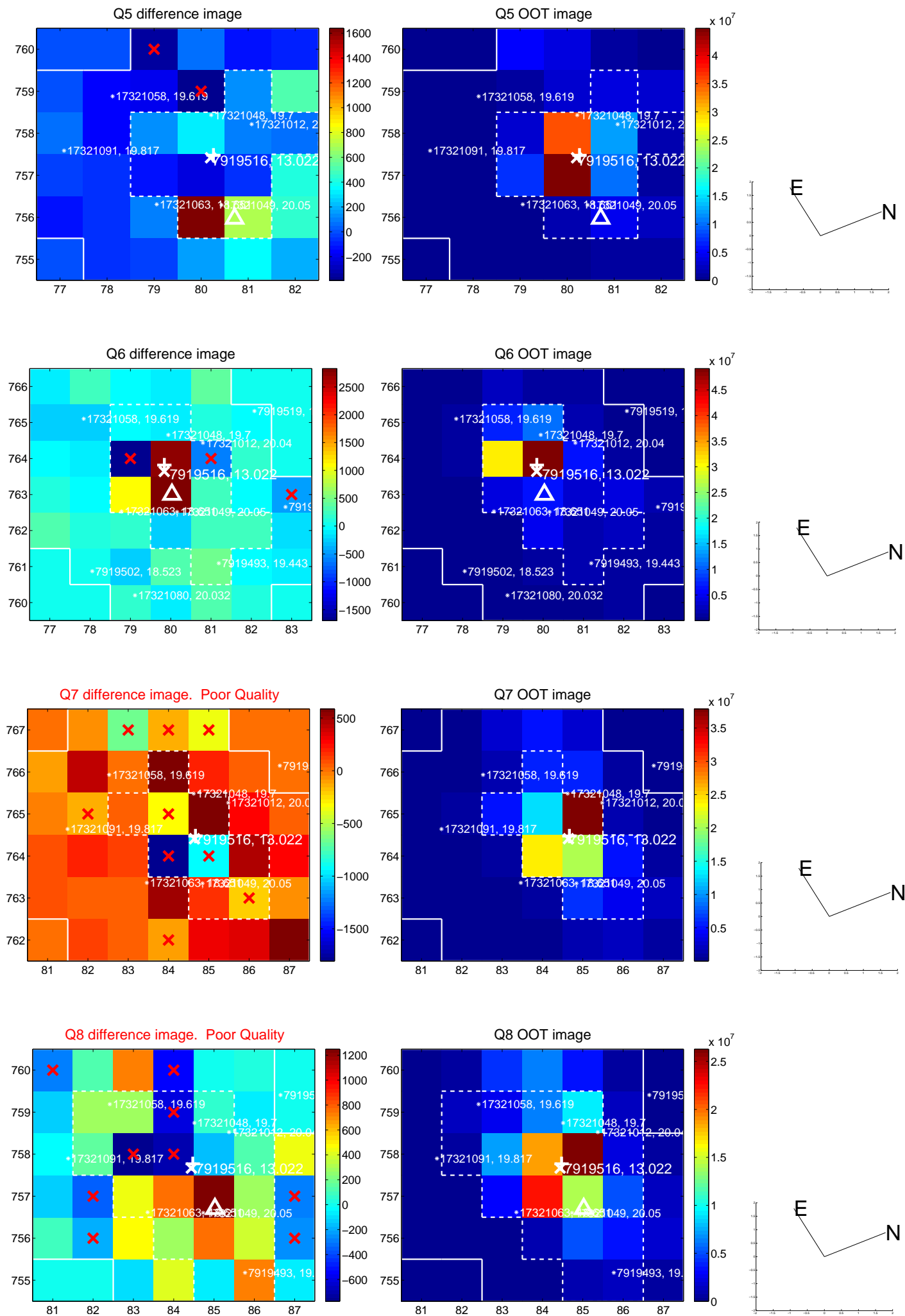


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

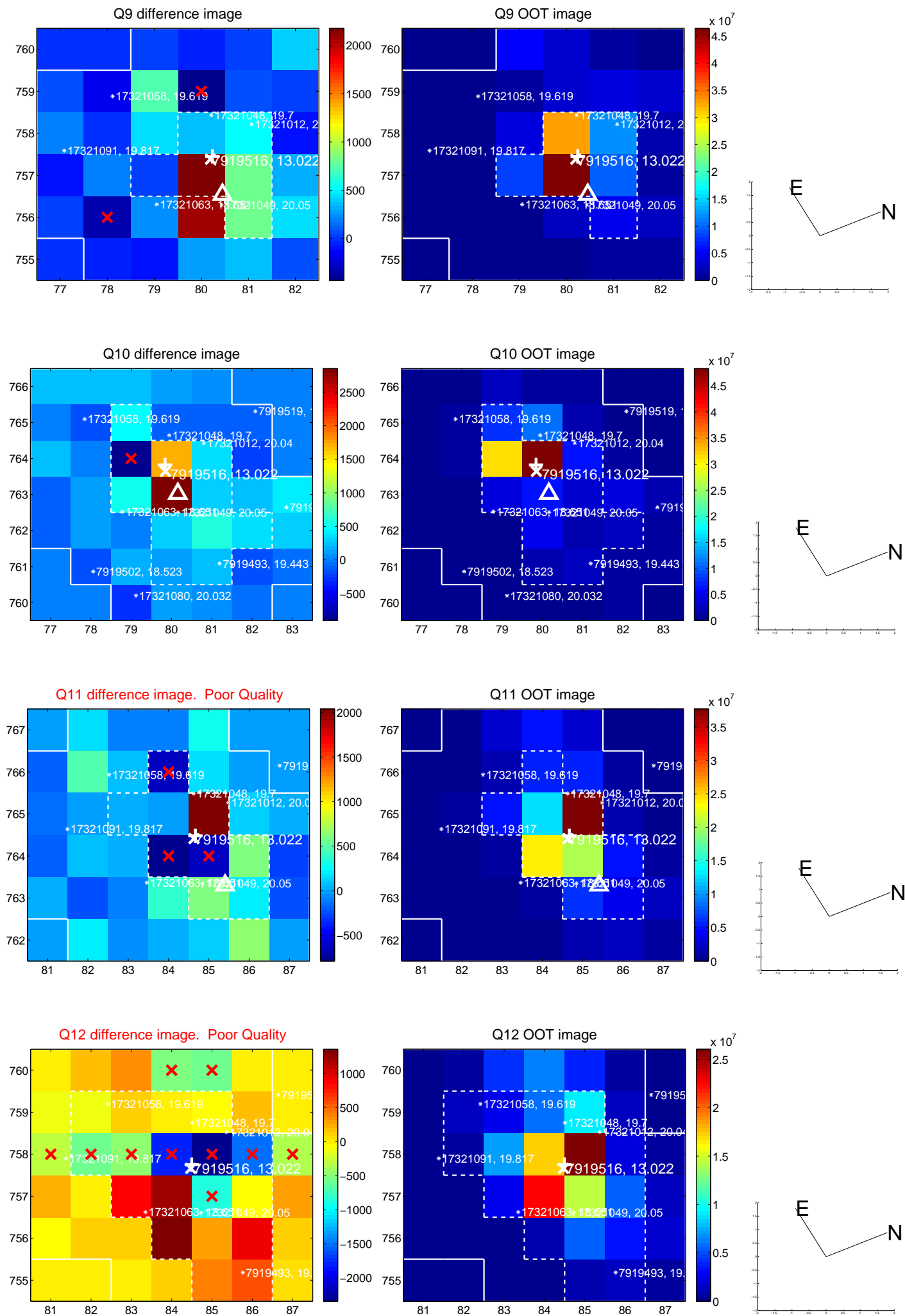
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



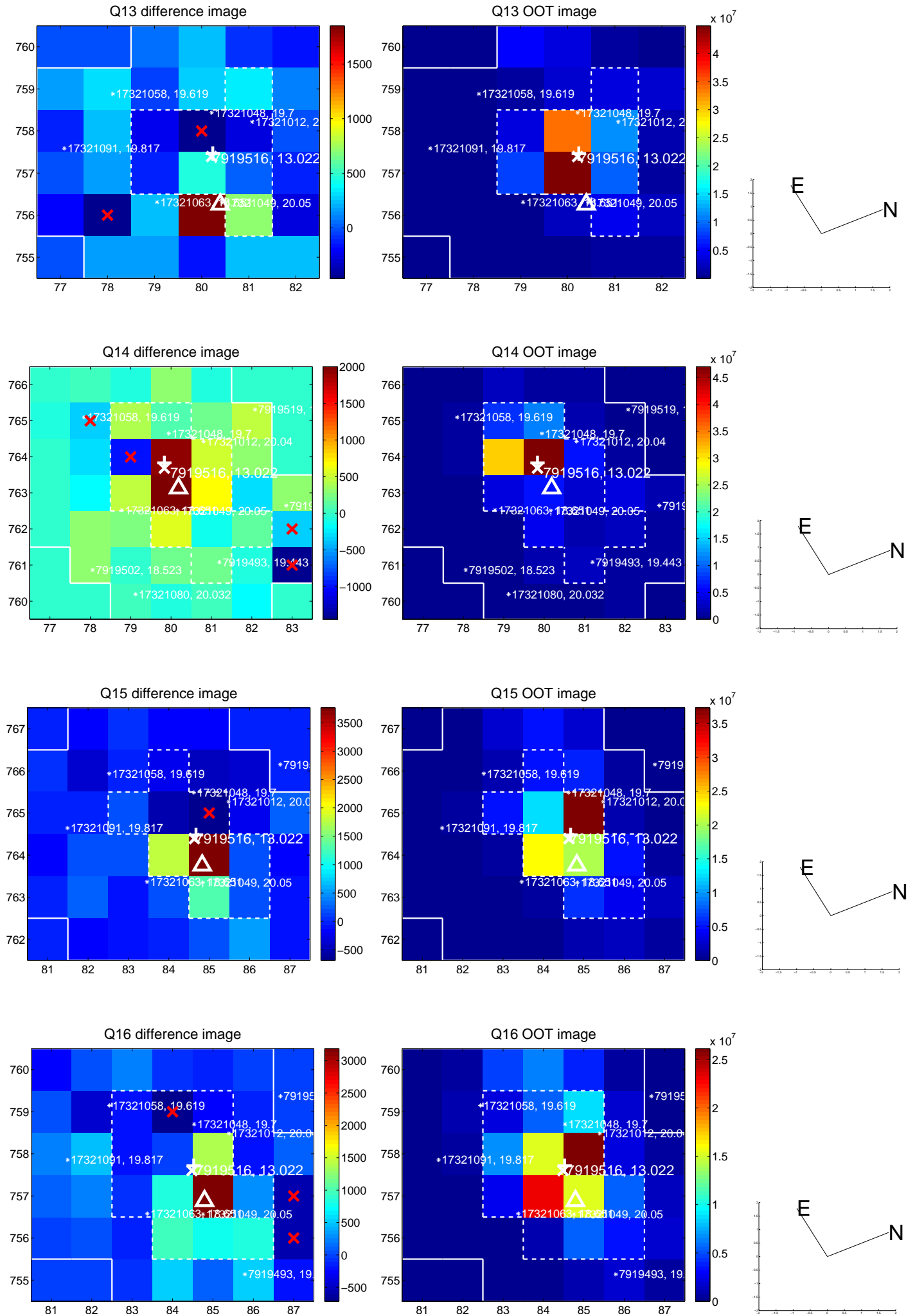
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



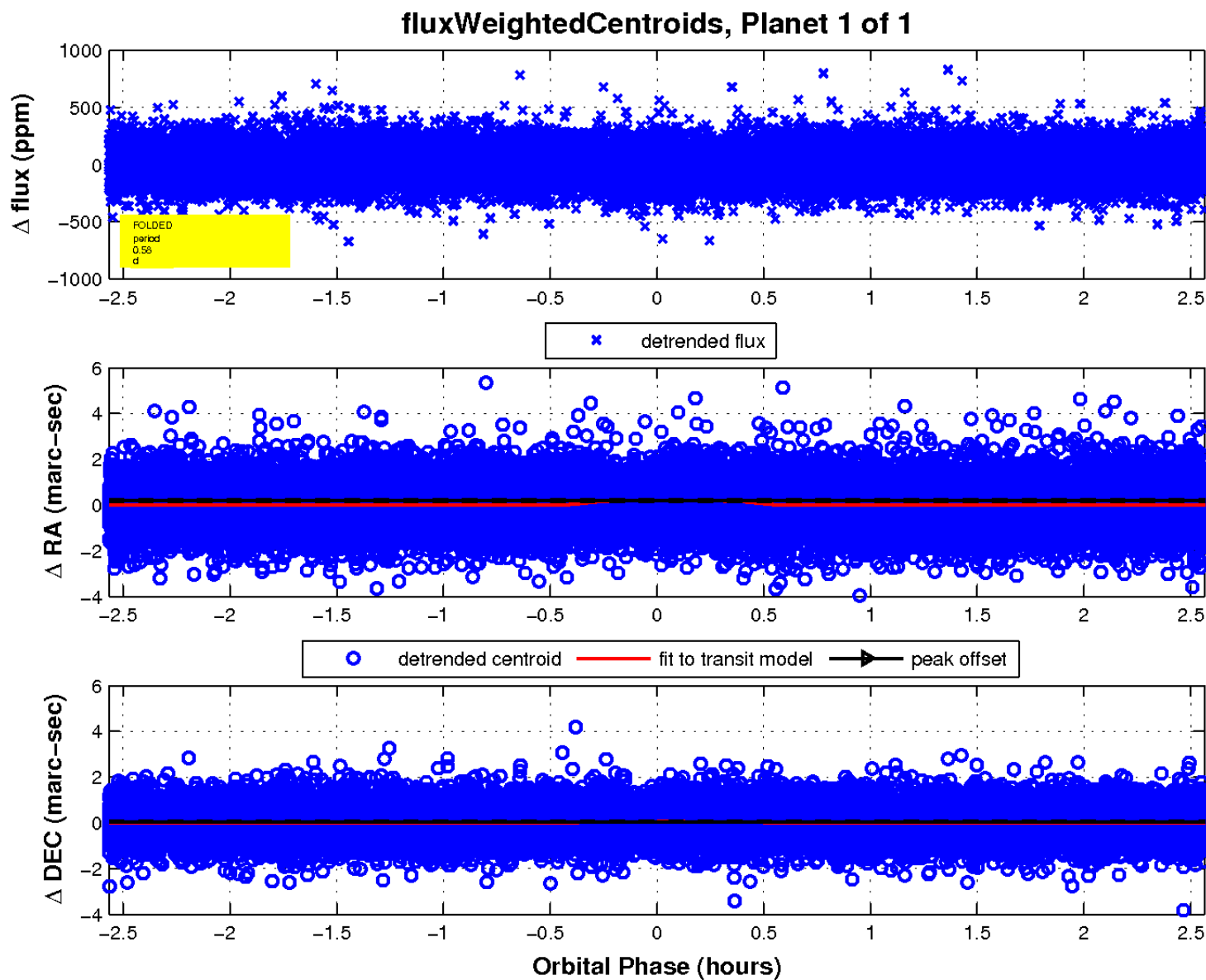
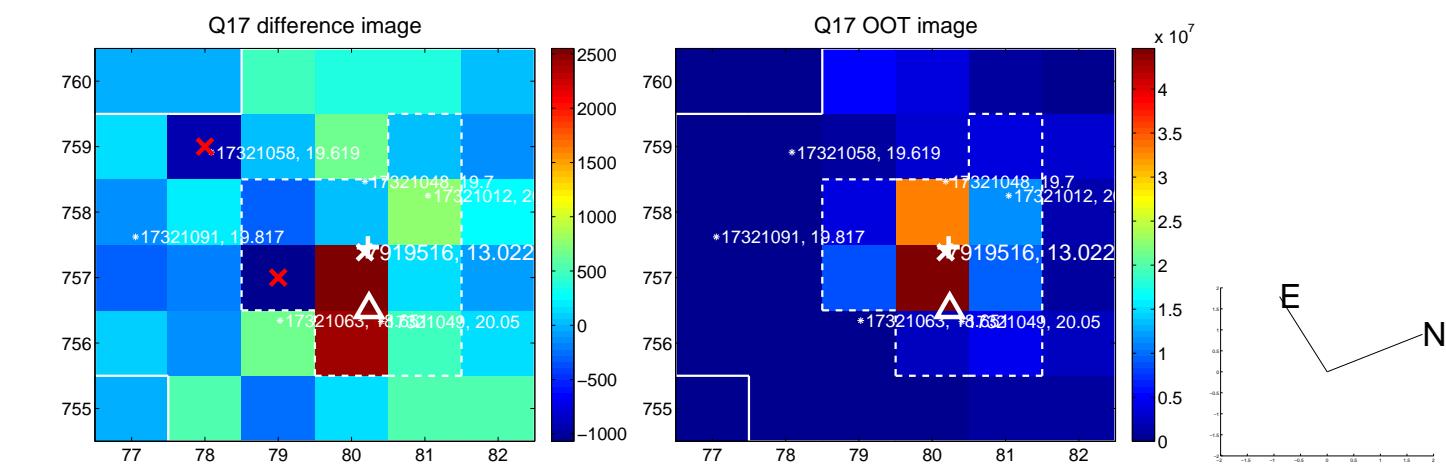
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

