

KIC 007679812

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})
007679812-01	OBS	3943.01	38.576088	167.861851	289.1	20.259	22.4	34.2	1.22	6167	2.25	34.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007679812-01	OBS	PC	0.97	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.

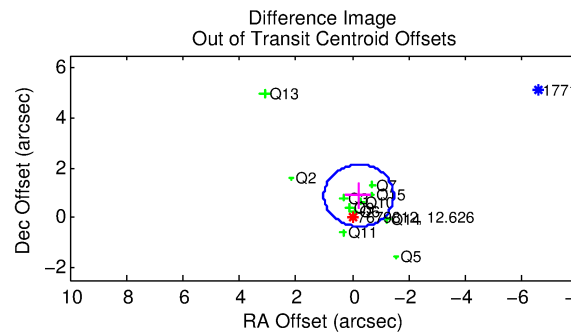
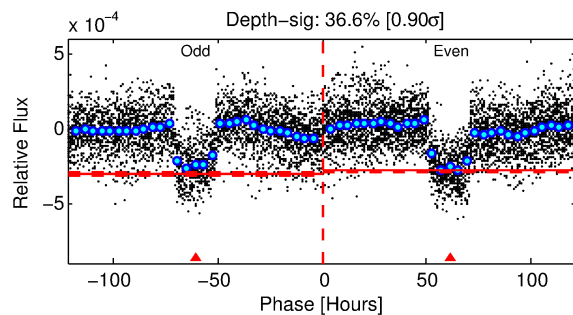
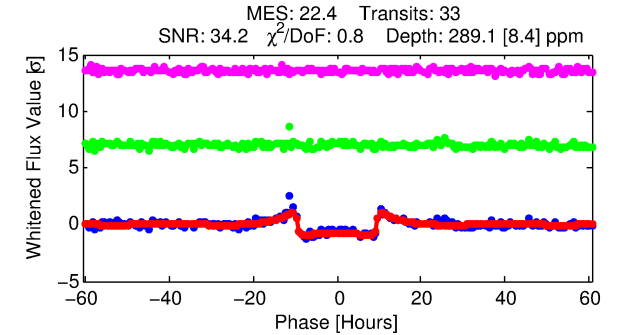
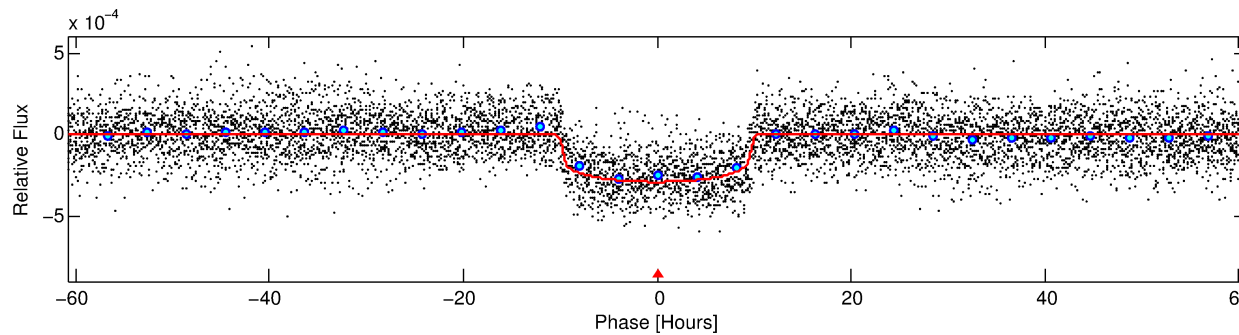
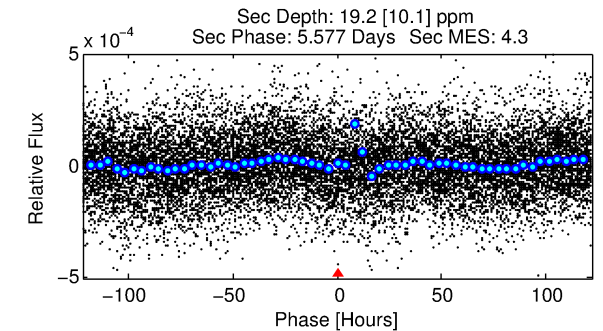
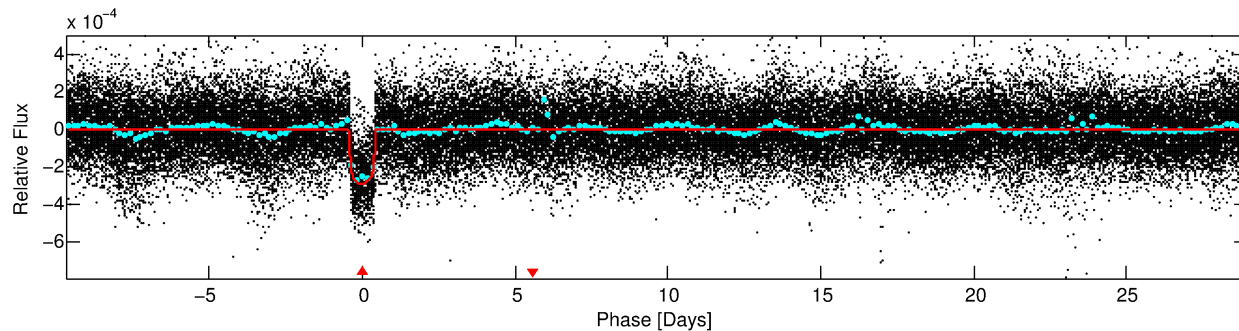
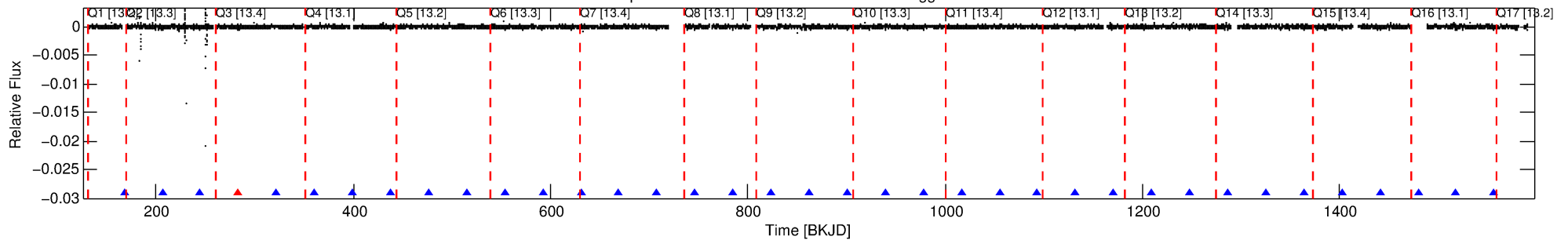
Ephemeris Match Information For 007679812-01

No Significant Match Found

DV One-Page Summary

KIC: 7679812 Candidate: 1 of 1 Period: 38.576 d
KOI: K03943.01 Corr: 0.980

Kp: 12.63 R*: 1.22 Rs Teff: 6167.0 K Logg: 4.33 Fe/H: 0.120



DV Fit Results:

Period = 38.57609 [0.00019] d
Epoch = 167.8619 [0.0042] BKJD
Rp/R* = 0.0169 [0.0006]
a/R* = 10.05 [1.35]
b = 0.75 [0.08]
Seff = 34.83 [8.35]
Teq = 619 [37] K
Rp = 2.25 [0.41] Re
a = 0.2355 [0.0357] AU
Ag = 115.49 [66.65] [1.72σ]
Teff = 3140 [423] K [5.93σ]

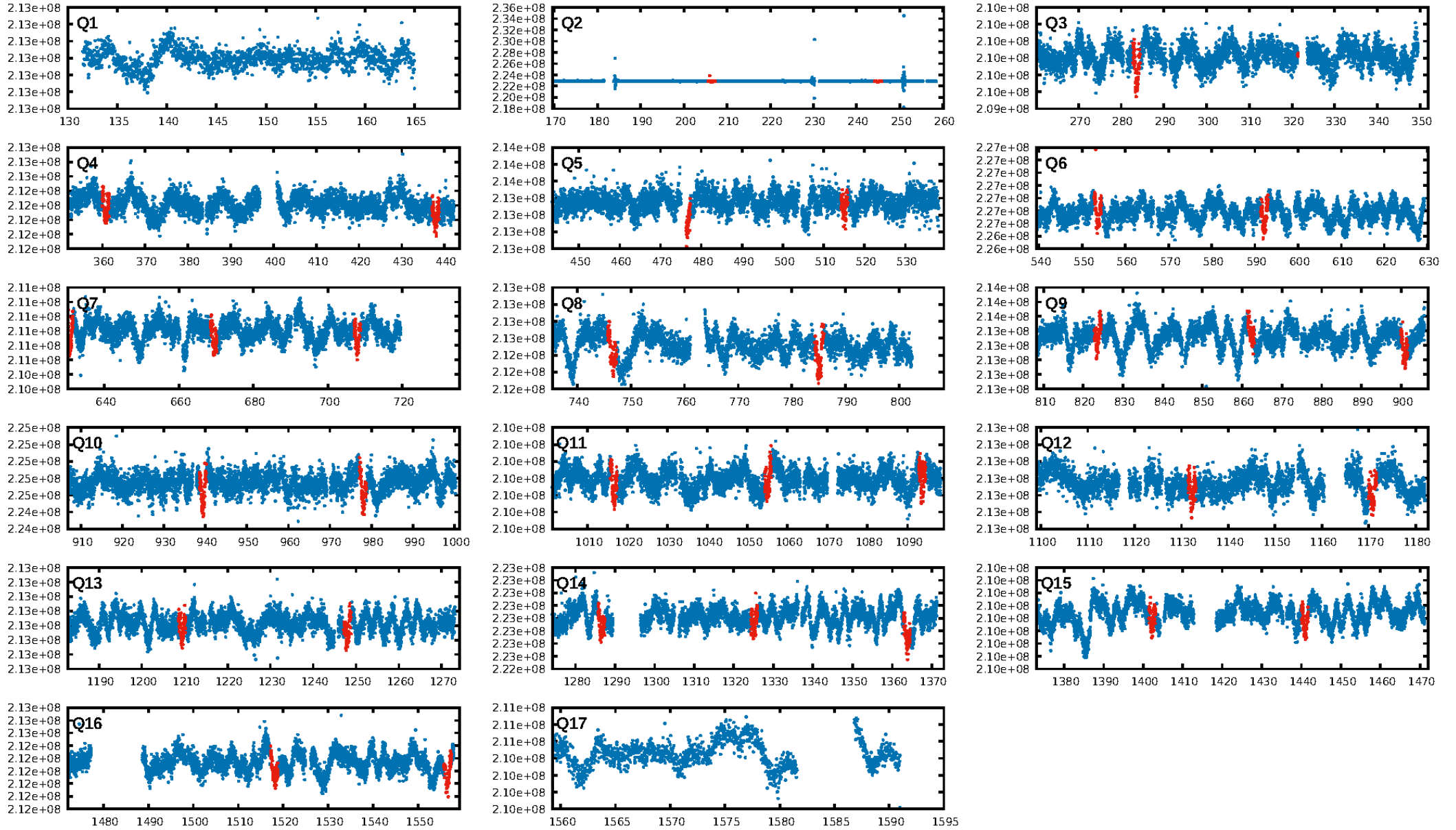
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 27.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.27e-100
RollingBand-figt: 0.97 [32/33]
GhostDiagnostic-chr: 13.75
Centroid-sig: 0.0%
Centroid-so: 0.876 arcsec [8.44σ]
OotOffset-rm: 0.907 arcsec [2.20σ]
OotOffset-st: 4/4/0/3 [11]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.87 [13/15]
DiffImageOverlap-fno: 1.00 [15/15]

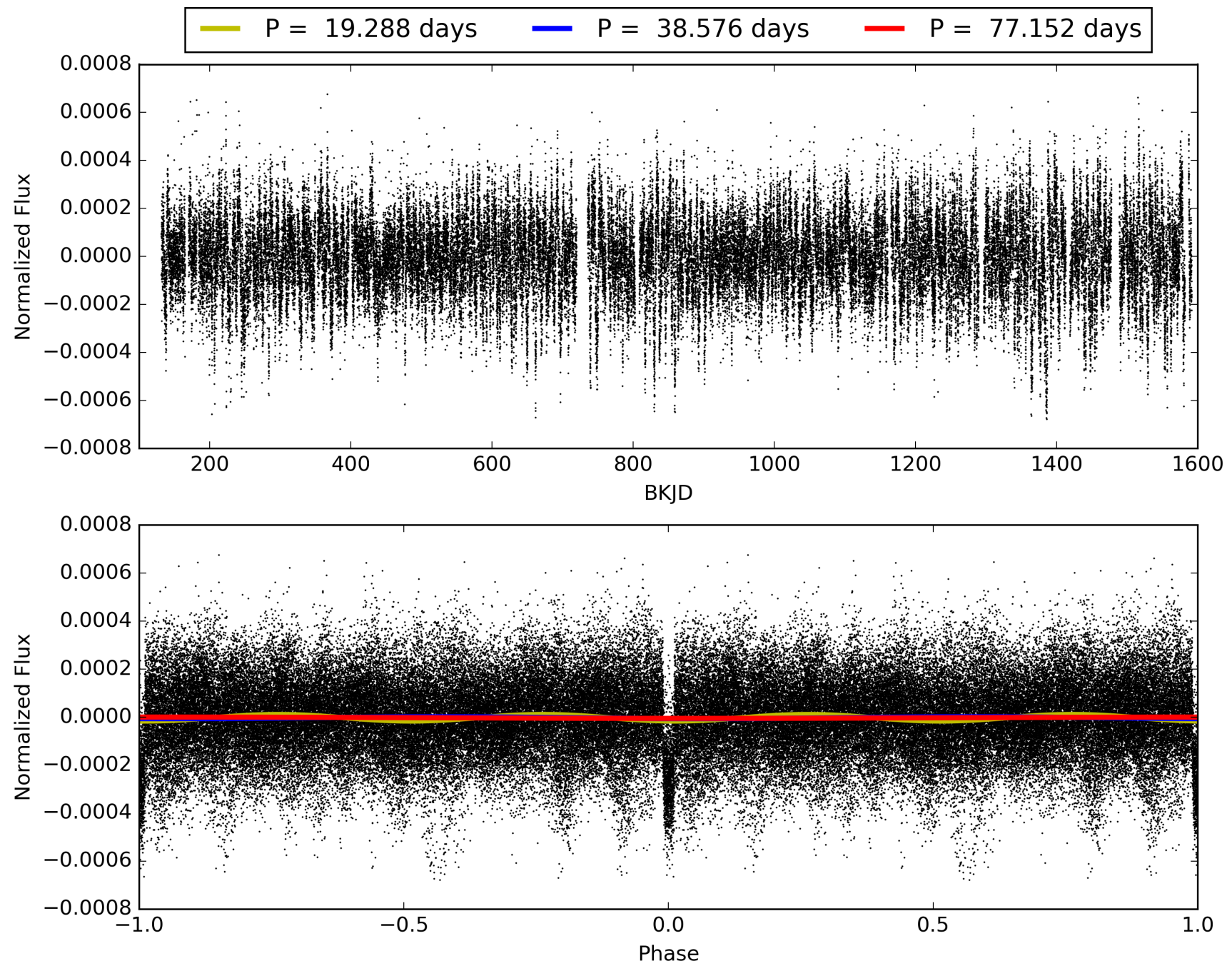
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:36:19 Z

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

TCE 007679812-01, PDC Light Curves

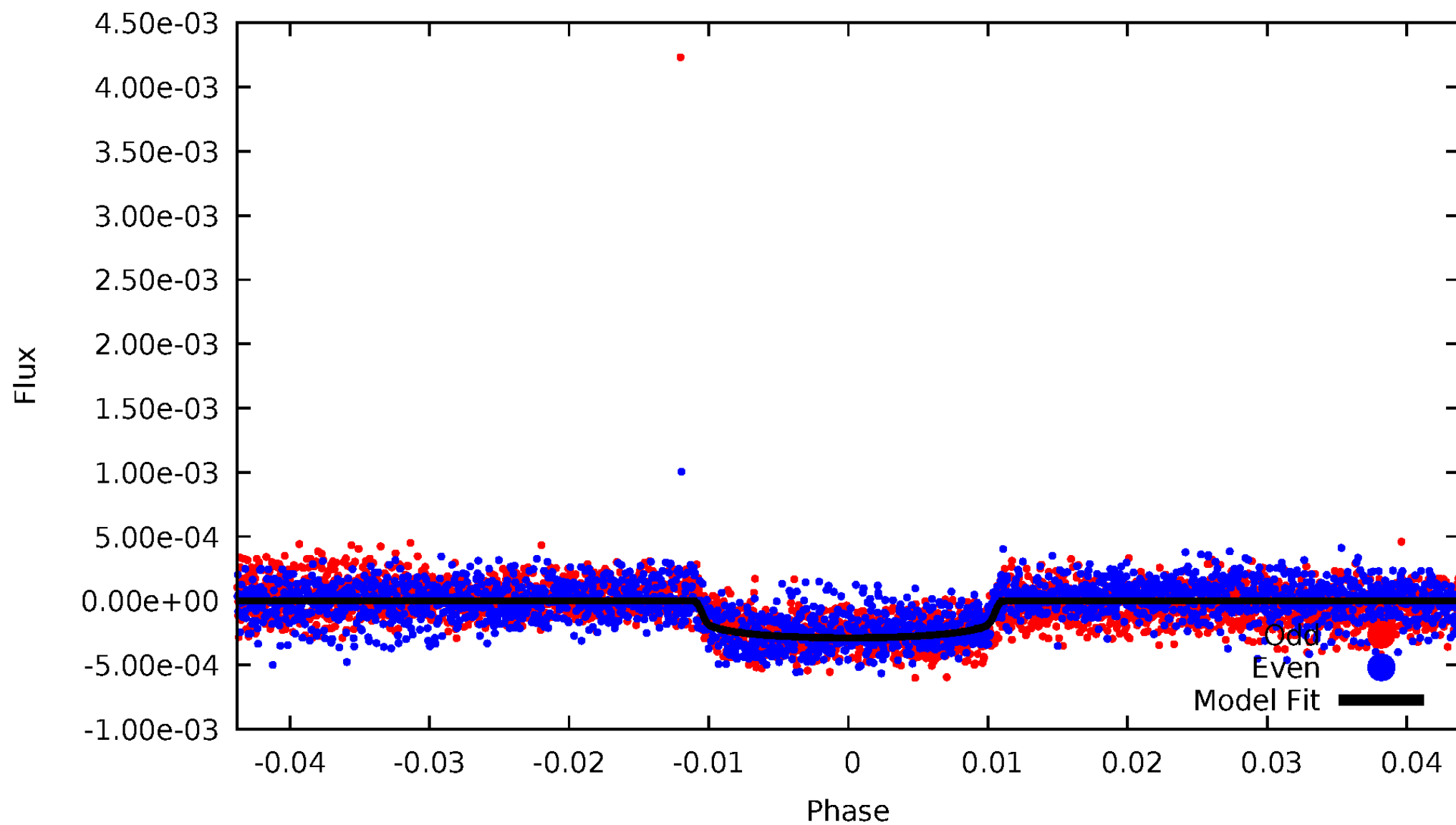


TCE 007679812-01



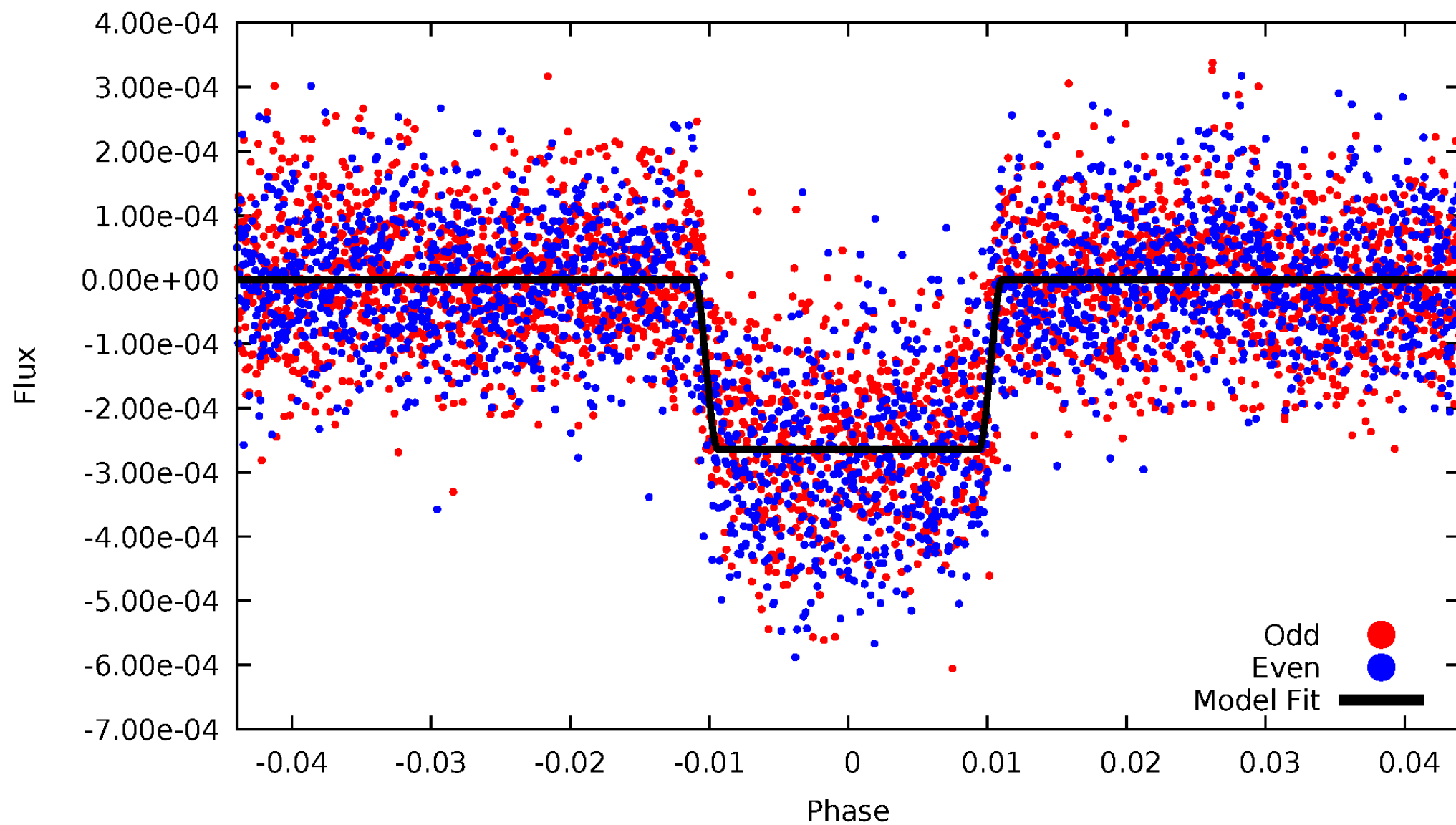
DV Odd/Even

TCE 007679812-01

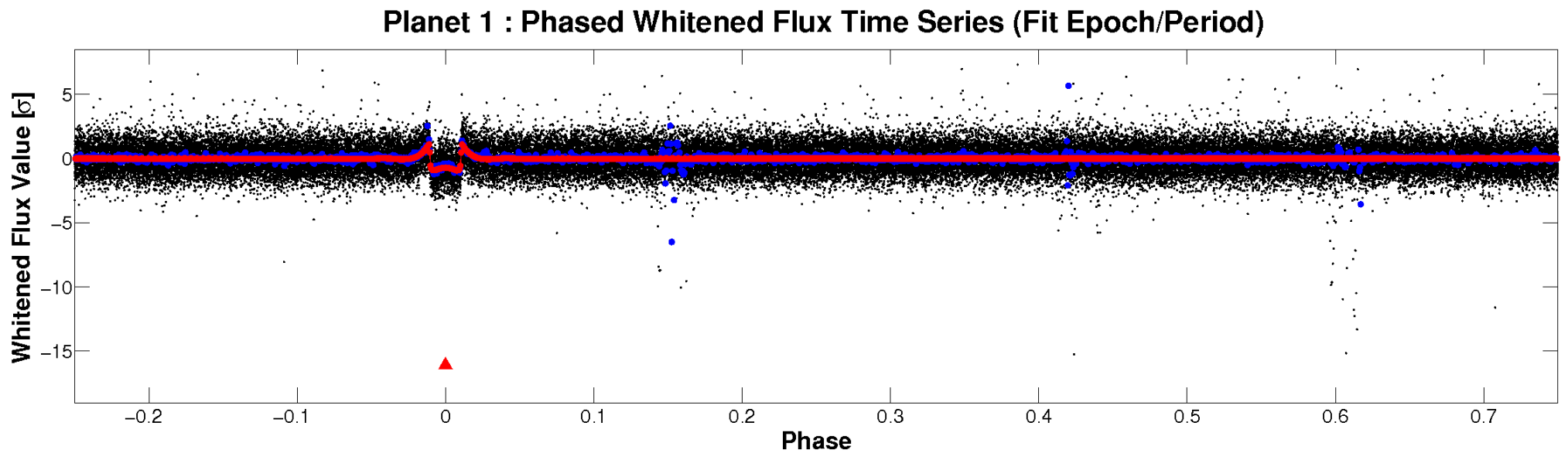
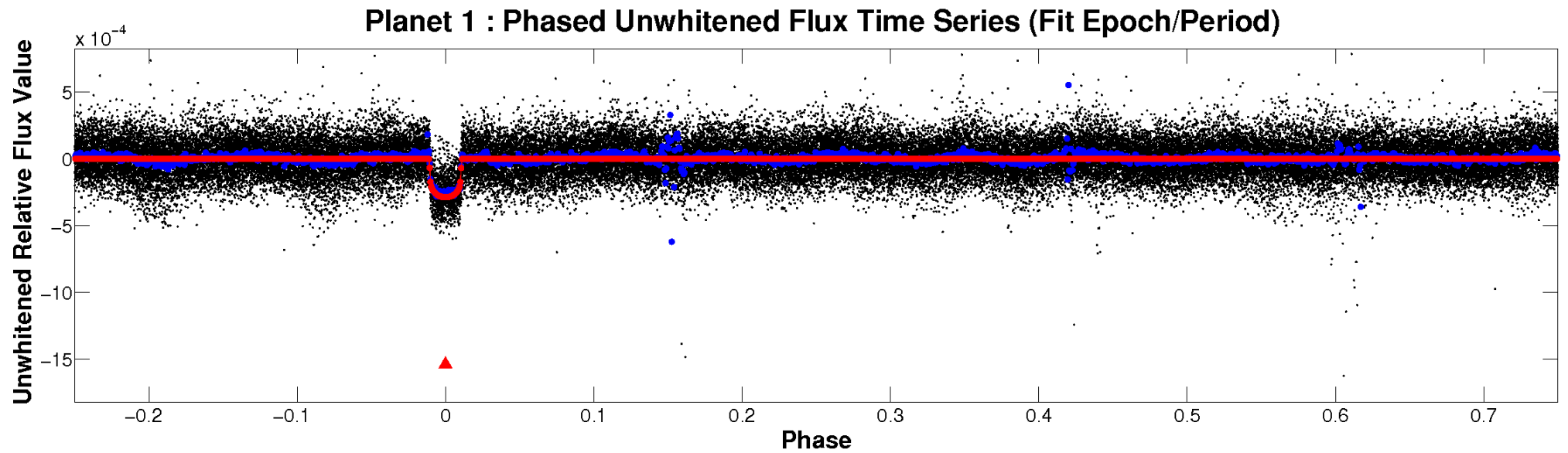


ALT Odd/Even

TCE 007679812-01

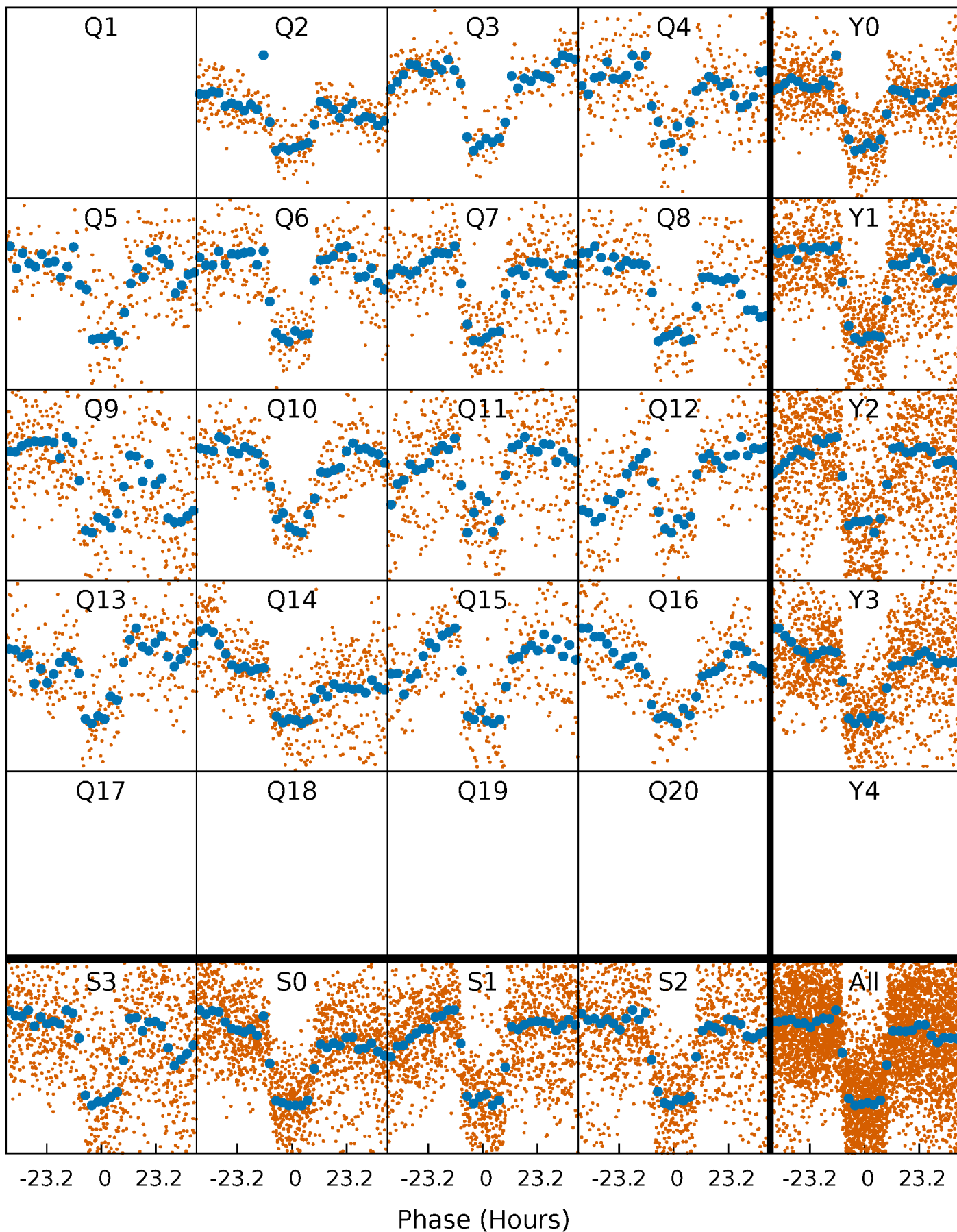


Non-Whitened Vs. Whitened Light Curve



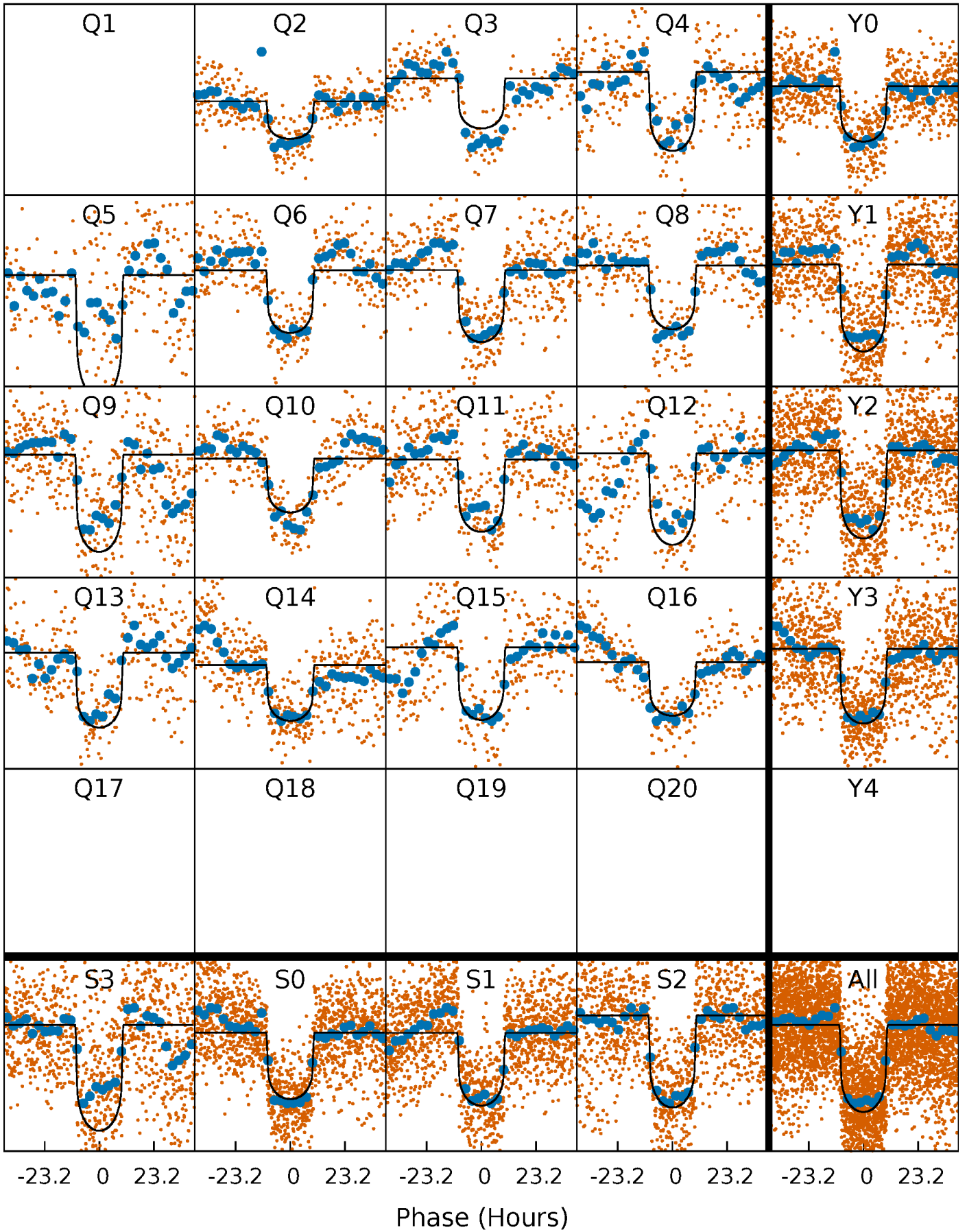
PDC Quarter-Phased Transit Curves

TCE 007679812-01 P= 38.576088 Days $T_0=167.861851$ (BKJD)



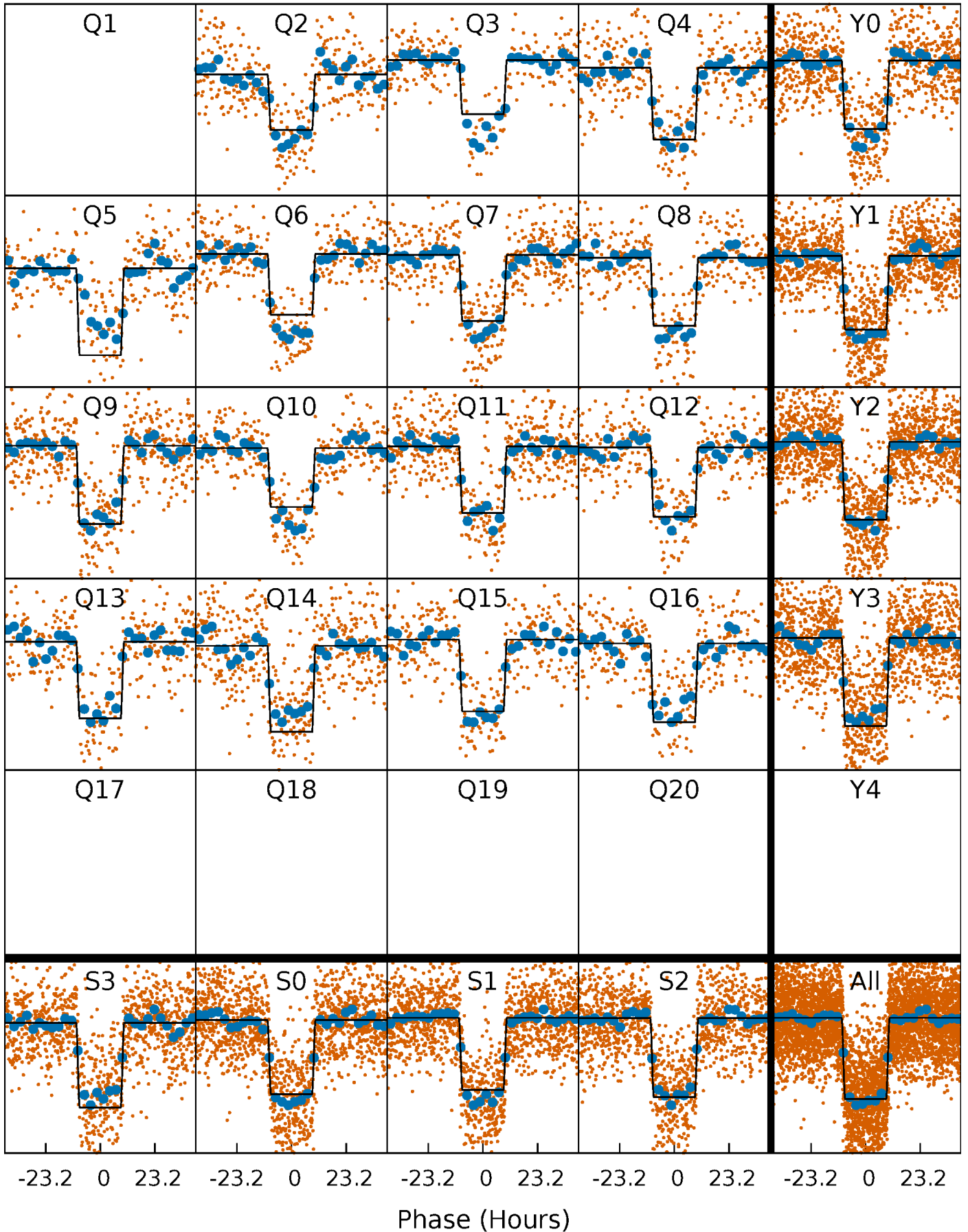
DV Quarter-Phased Transit Curves

TCE 007679812-01 P= 38.576088 Days $T_0=167.861851$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

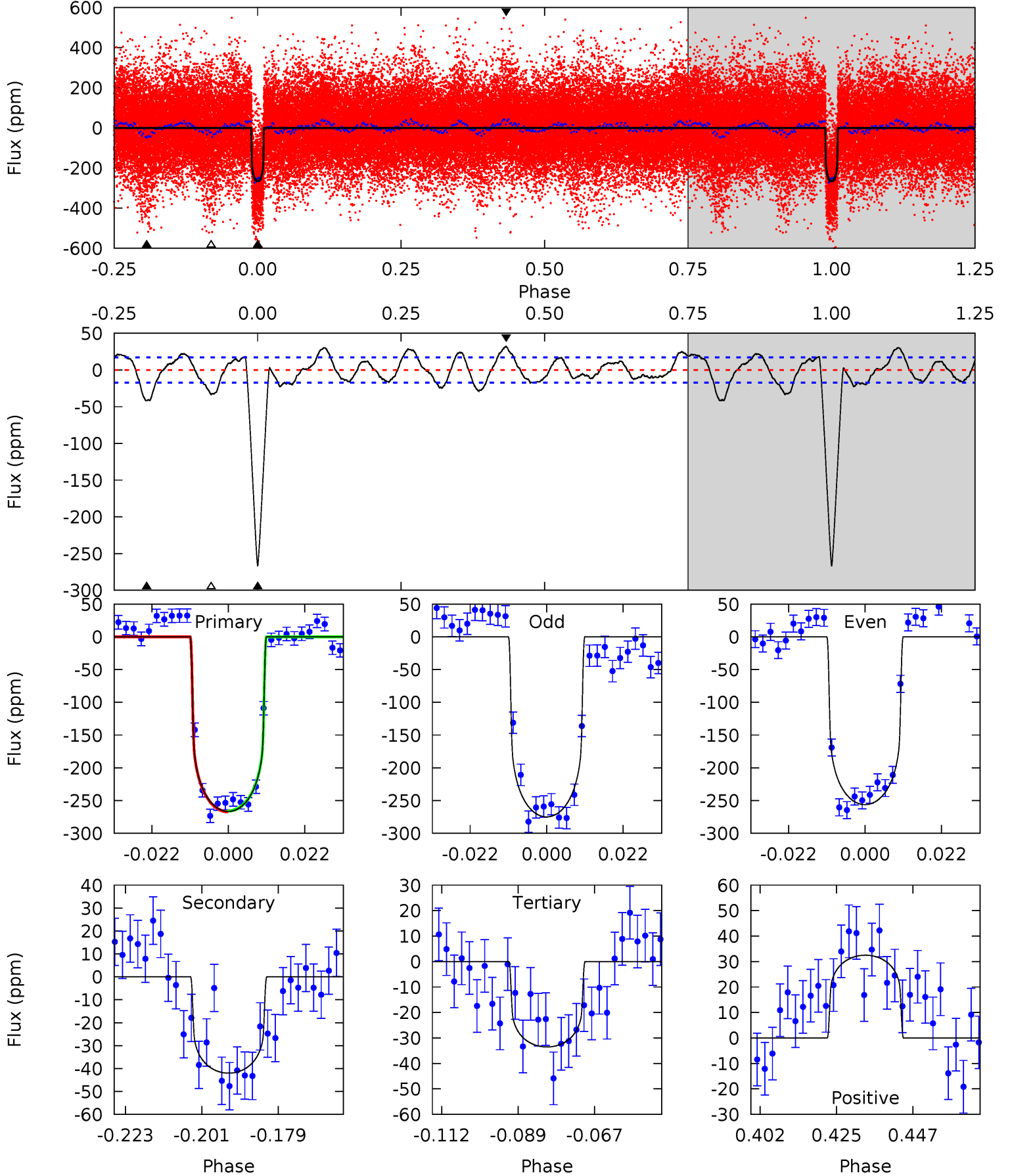
TCE 007679812-01 P= 38.577108 Days $T_0=167.843817$ (BKJD)



DV Model-Shift Uniqueness Test

007679812-01, P = 38.576088 Days, E = 129.285763 Days

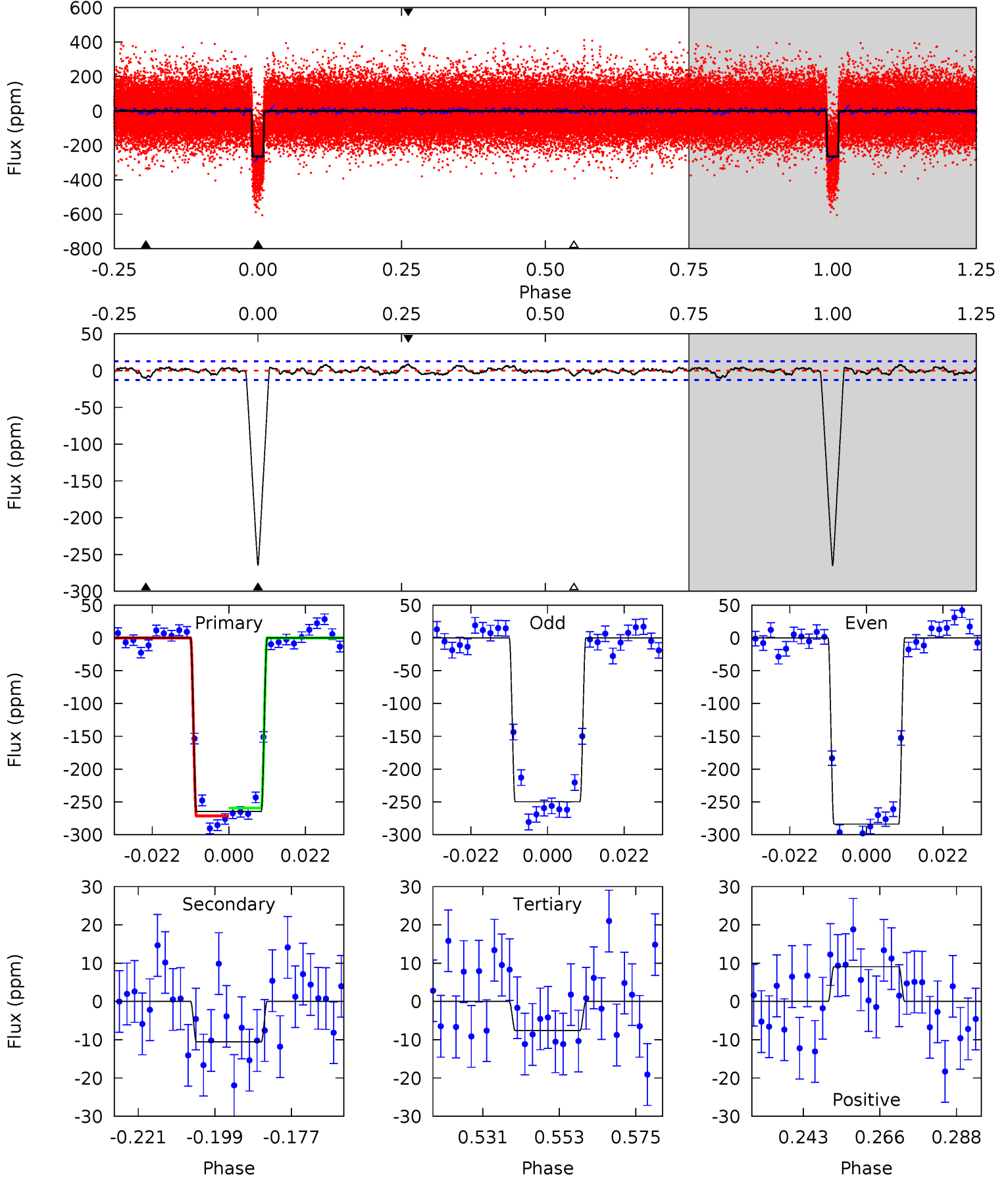
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
75.4	11.9	9.49	9.19	4.87	2.28	4.23	65.9	66.2	2.40	2.69	2.63	1.01	0.11	0.21



Alt Model-Shift Uniqueness Test

007679812-01, P = 38.577108 Days, E = 129.266709 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
101.7	4.06	2.92	3.49	4.87	2.29	1.17	98.8	98.2	1.14	0.57	6.49	0.99	0.03	2.32



Stellar Parameters For KIC 007679812

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6167^{+111}_{-136}	$4.333^{+0.076}_{-0.123}$	$0.120^{+0.150}_{-0.150}$	$1.221^{+0.217}_{-0.133}$	$1.174^{+0.086}_{-0.096}$	$0.909^{+0.297}_{-0.313}$
	+2%/-2%	+2%/-3%	+125%/-125%	+18%/-11%	+7%/-8%	+33%/-34%
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 007679812-01 / KOI 3943.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-42 ± 4	$2.28^{+0.22}_{-0.19}$	871^{+40}_{-33}	4105^{+100}_{-95}	244^{+48}_{-42}
Alt.	-11 ± 3	$2.18^{+0.21}_{-0.16}$	869^{+39}_{-32}	3300^{+134}_{-147}	65^{+23}_{-18}

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

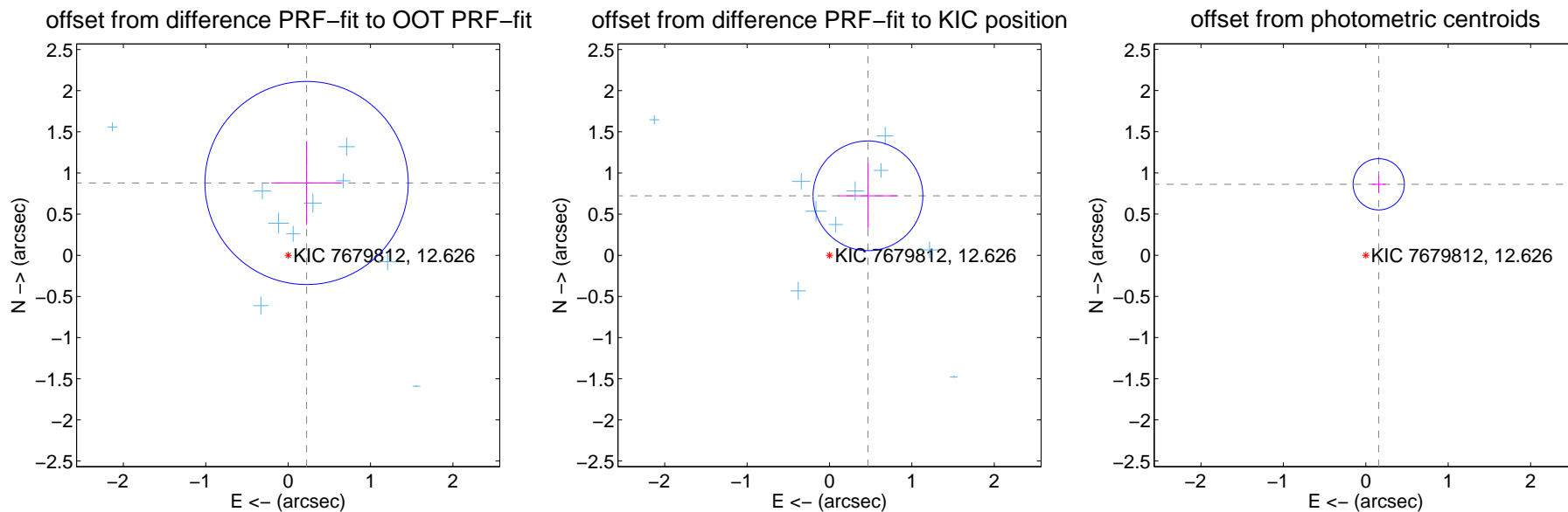
DV Centroid Data

Supplemental centroid analysis for 007679812-01. Kepler magnitude: 12.63. Transit SNR 34.16

There are 13 quarters with good PRF difference image offsets

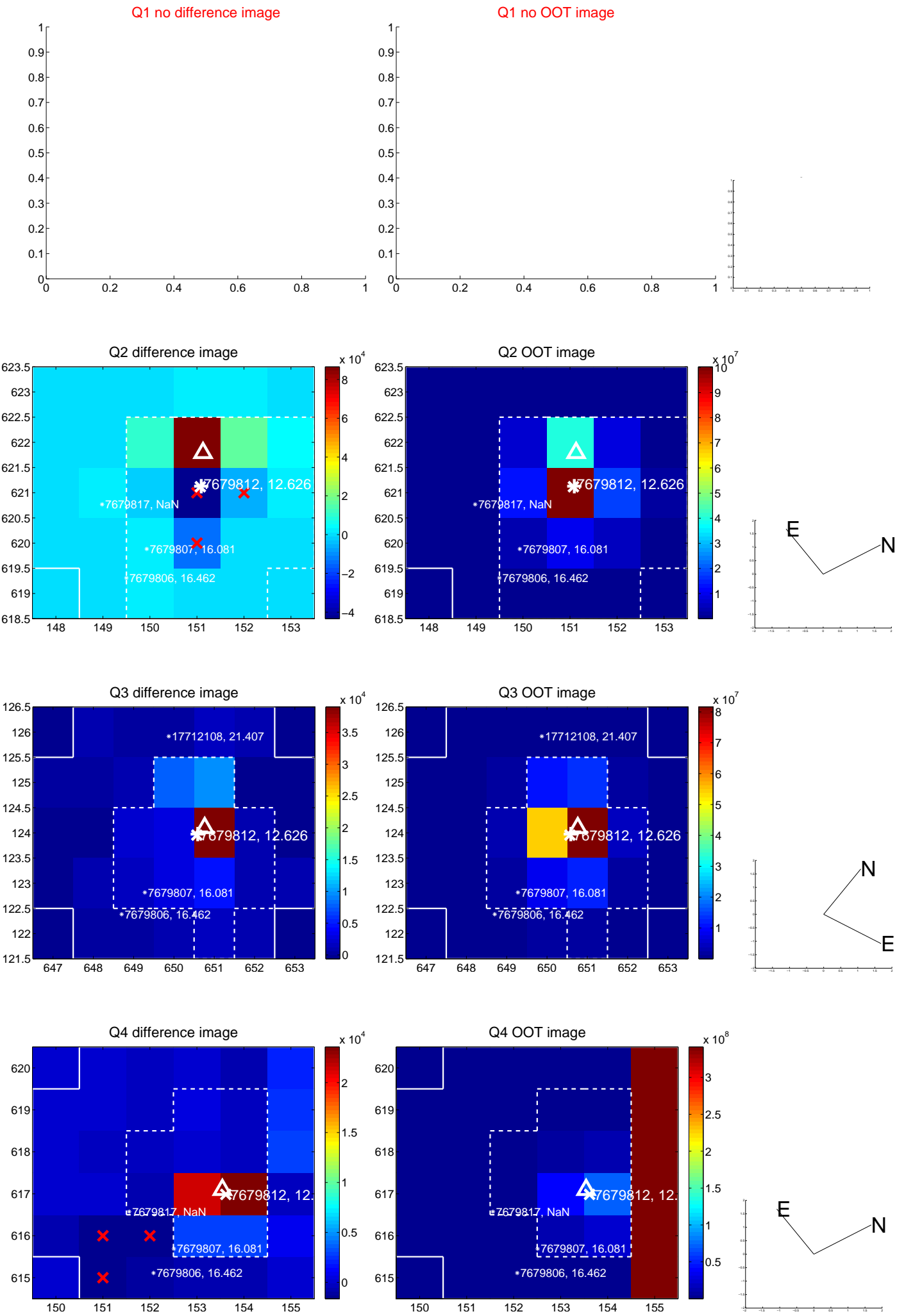
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.907 ± 0.411	2.20	-0.224 ± 0.430	0.878 ± 0.508
PRF-fit source offset from KIC position	0.860 ± 0.222	3.87	-0.467 ± 0.365	0.723 ± 0.398
photometric centroid source offset	0.88 ± 0.10	8.44	-0.16 ± 0.08	0.86 ± 0.10

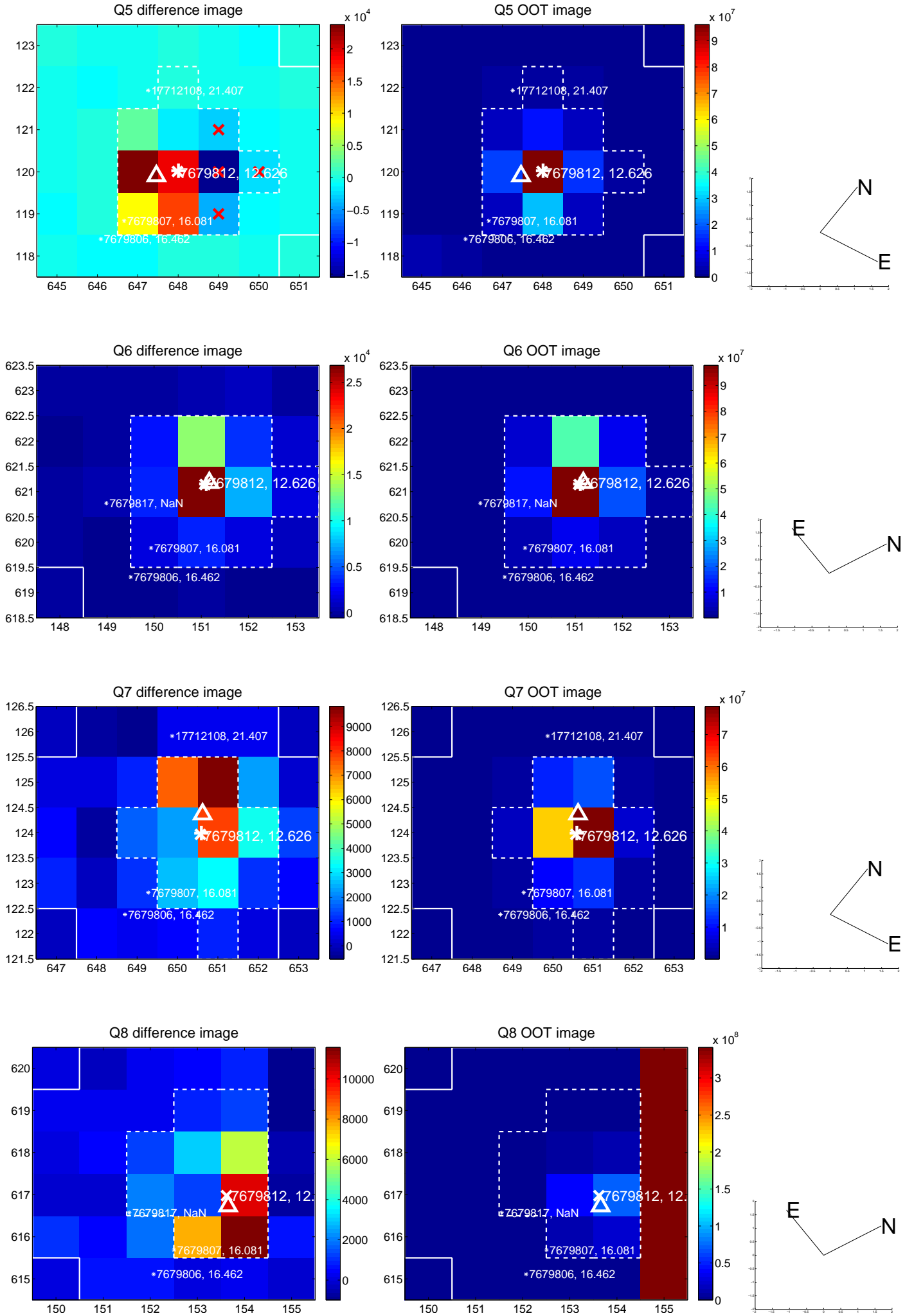


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

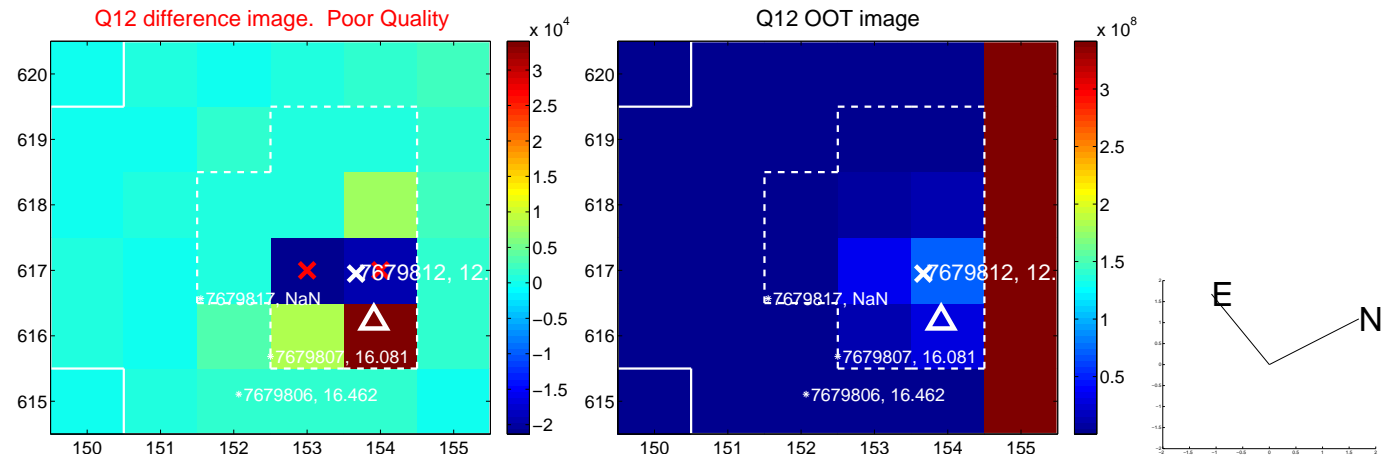
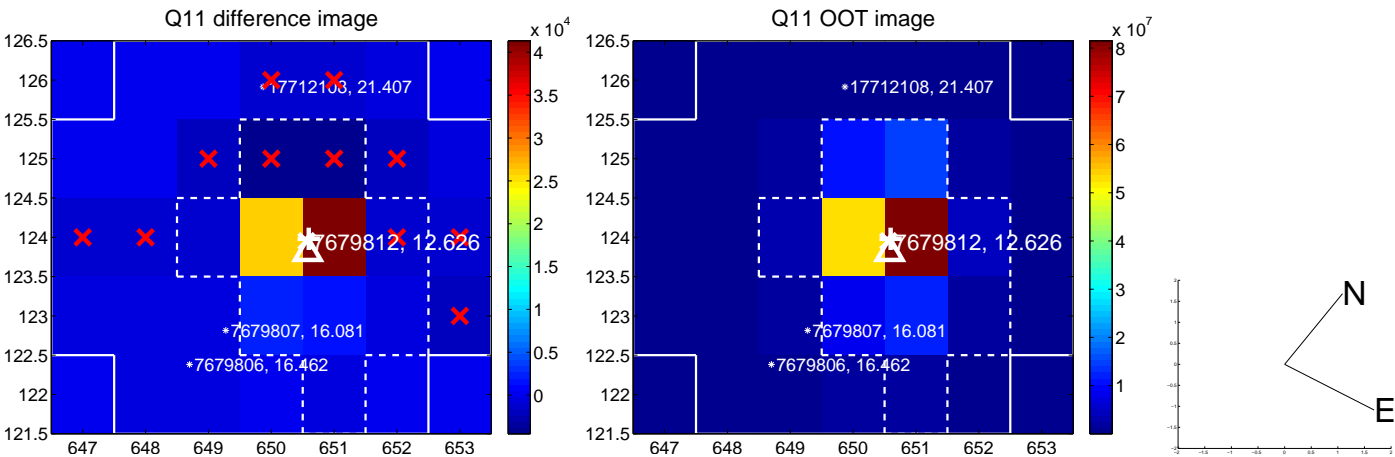
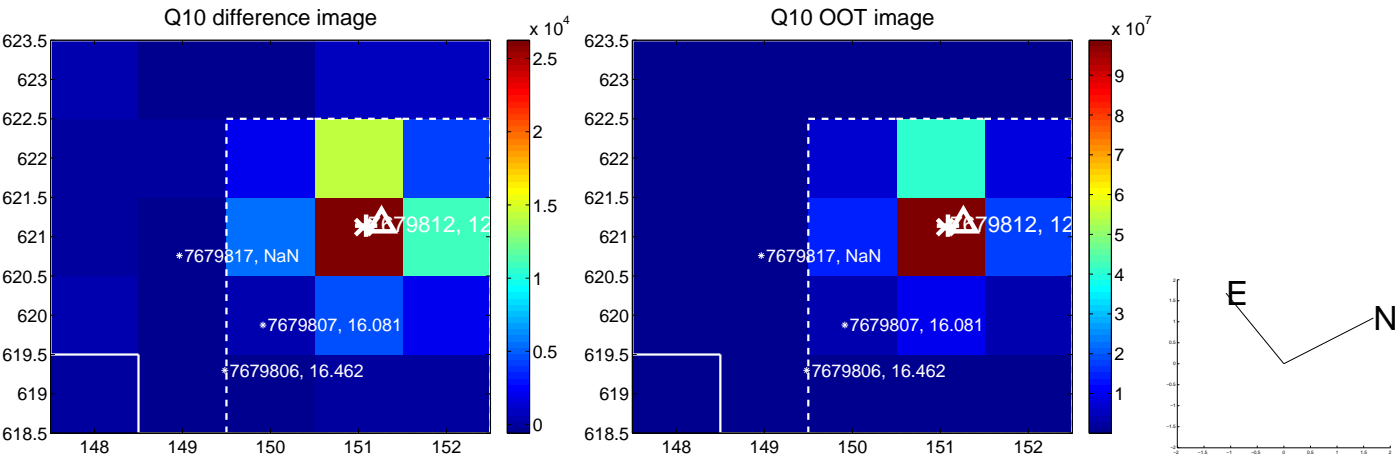
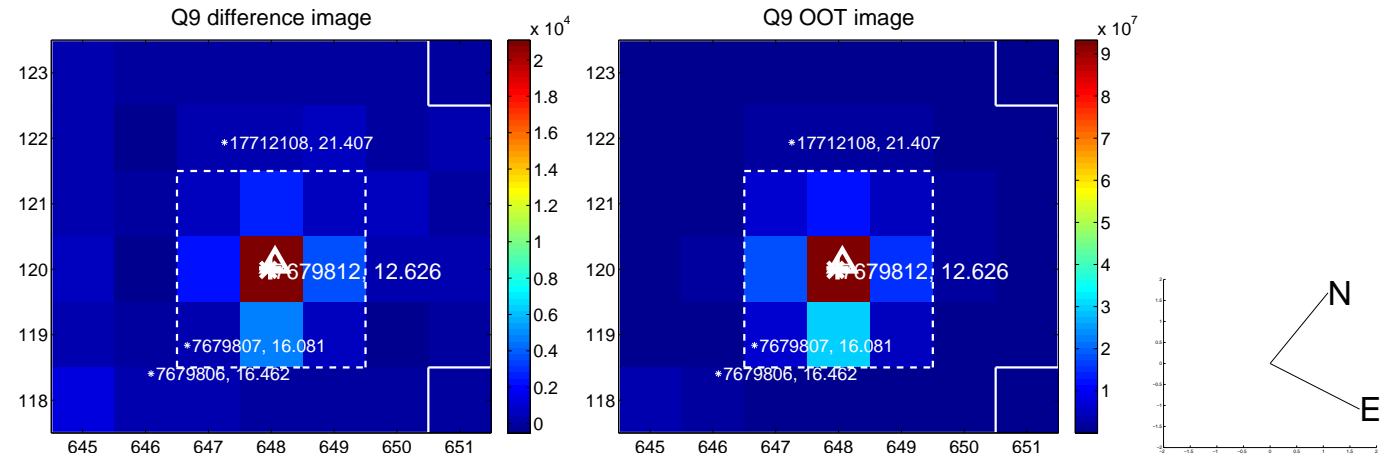
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



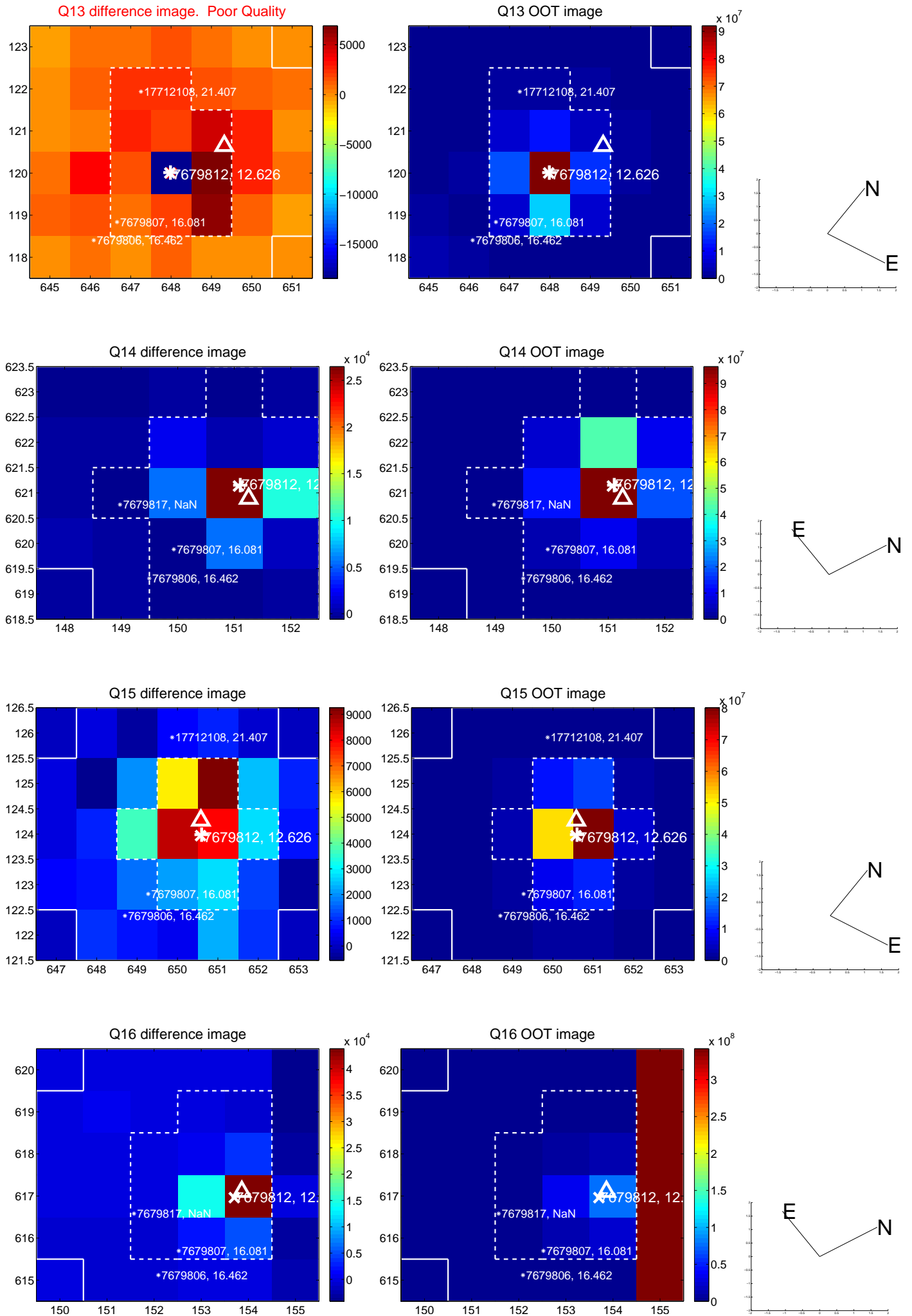
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



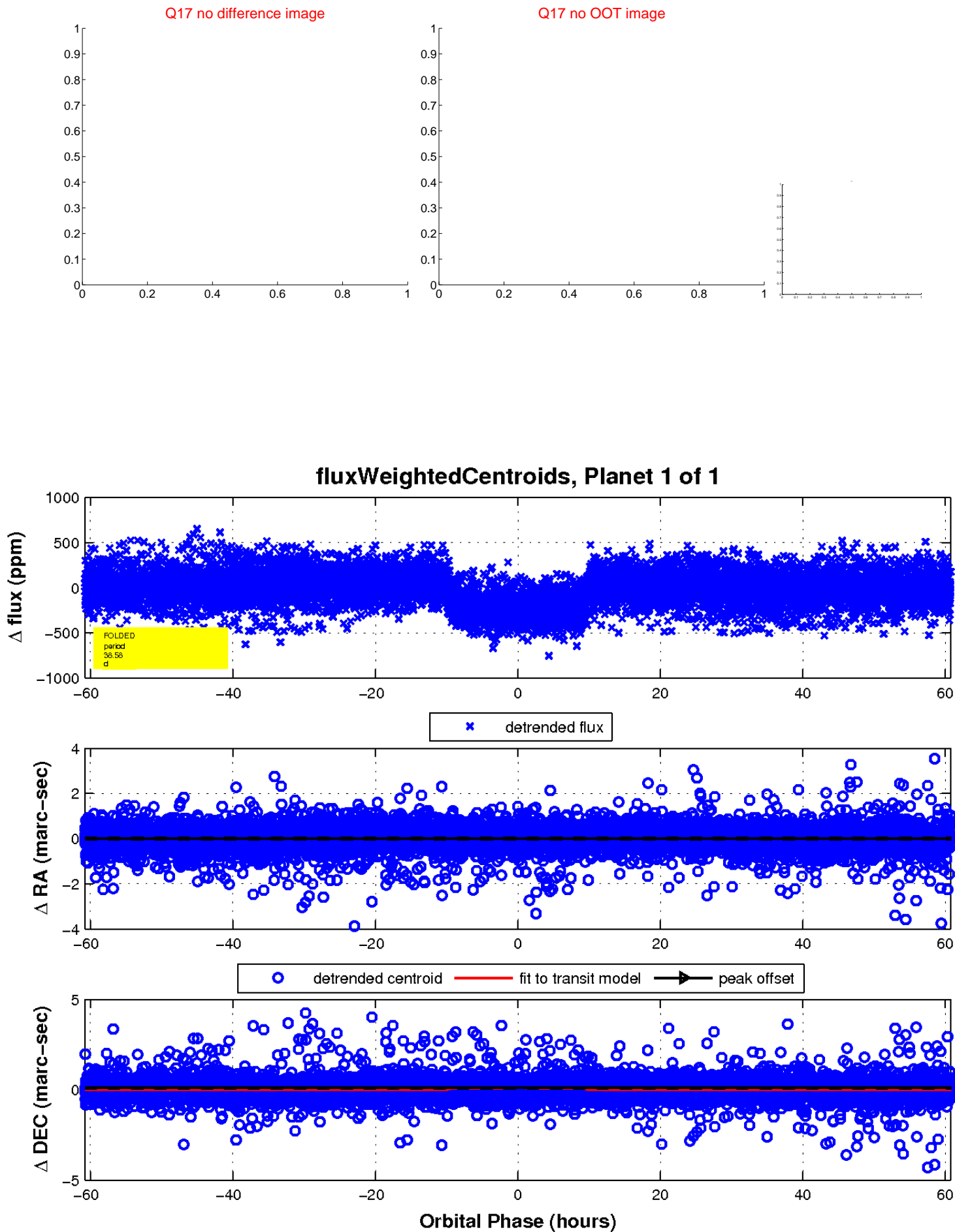
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UKIRT Image

Declination

