

KIC 006387819

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})
006387819-01	OBS	No	11.244263	136.794678	174.7	43.373	16.0	28.5	1.89	6522	4.93	530.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006387819-01	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.

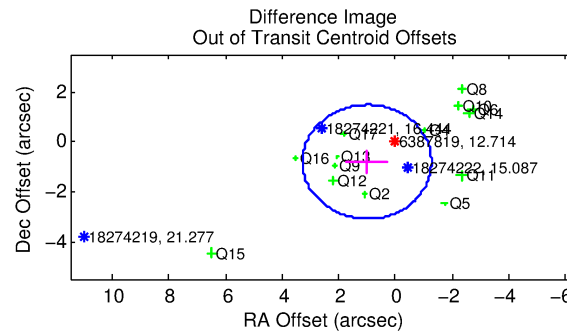
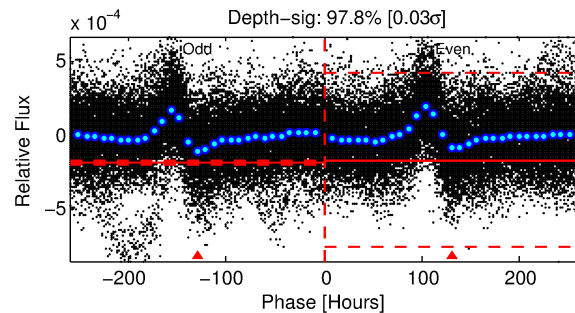
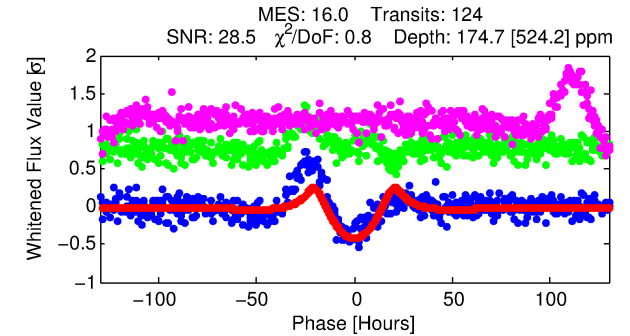
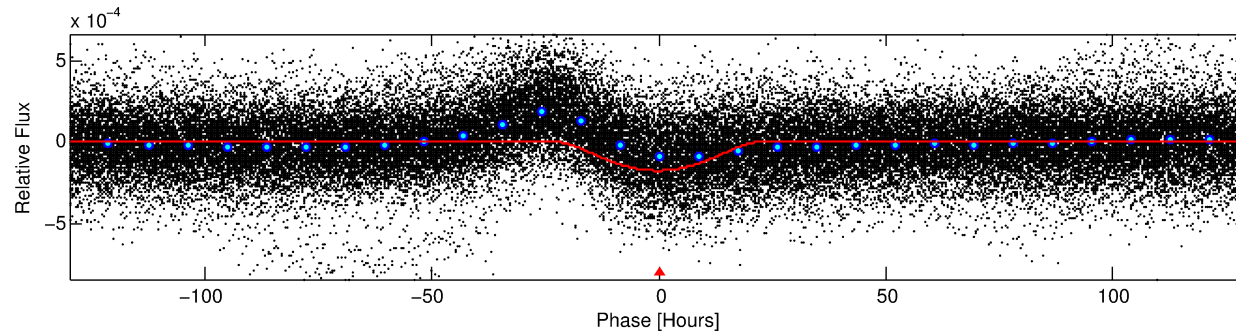
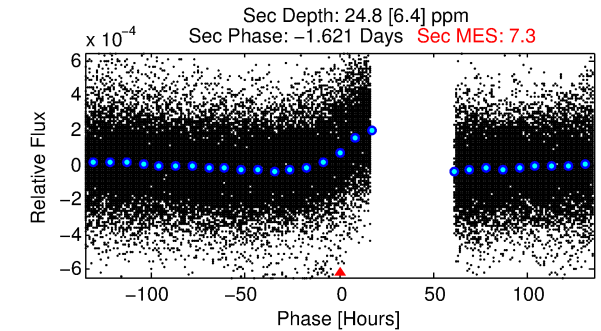
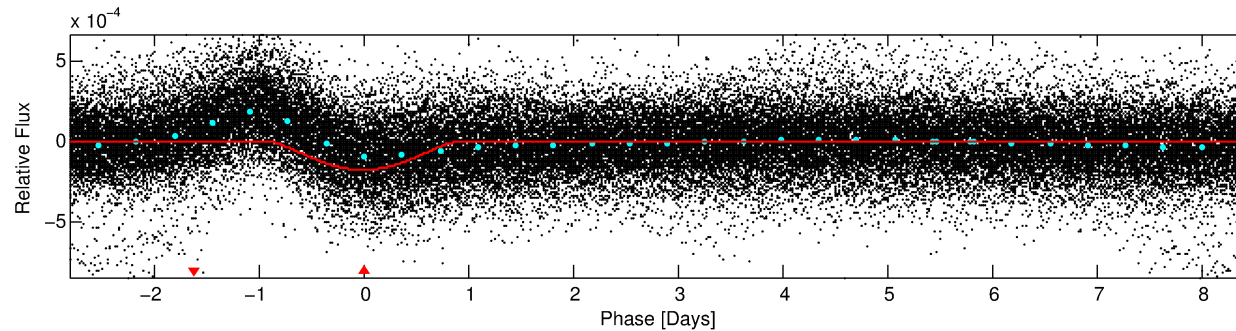
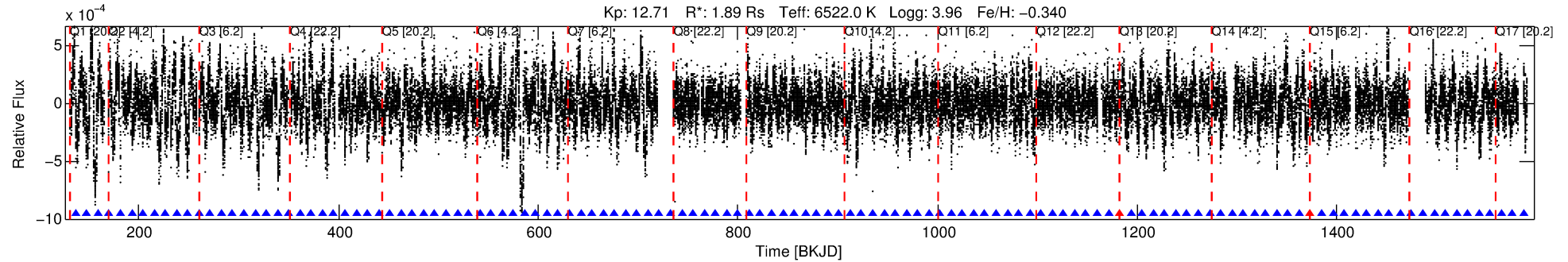
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006387819-01

No Significant Match Found

DV One-Page Summary

KIC: 6387819 Candidate: 1 of 1 Period: 11.244 d



DV Fit Results:

Period = 11.24426 [0.00029] d
Epoch = 136.7947 [0.0214] BKJD
Rp/R* = 0.0239 [0.0097]
a/R* = 1.10 [0.01]
b = 1.00 [0.04]
Seff = 530.91 [254.02]
Teq = 1224 [146] K
Rp = 4.93 [2.48] Re
a = 0.1043 [0.0300] AU
Ag = 6.10 [5.91] [0.86σ]
Teffp = 2974 [639] K [2.67σ]

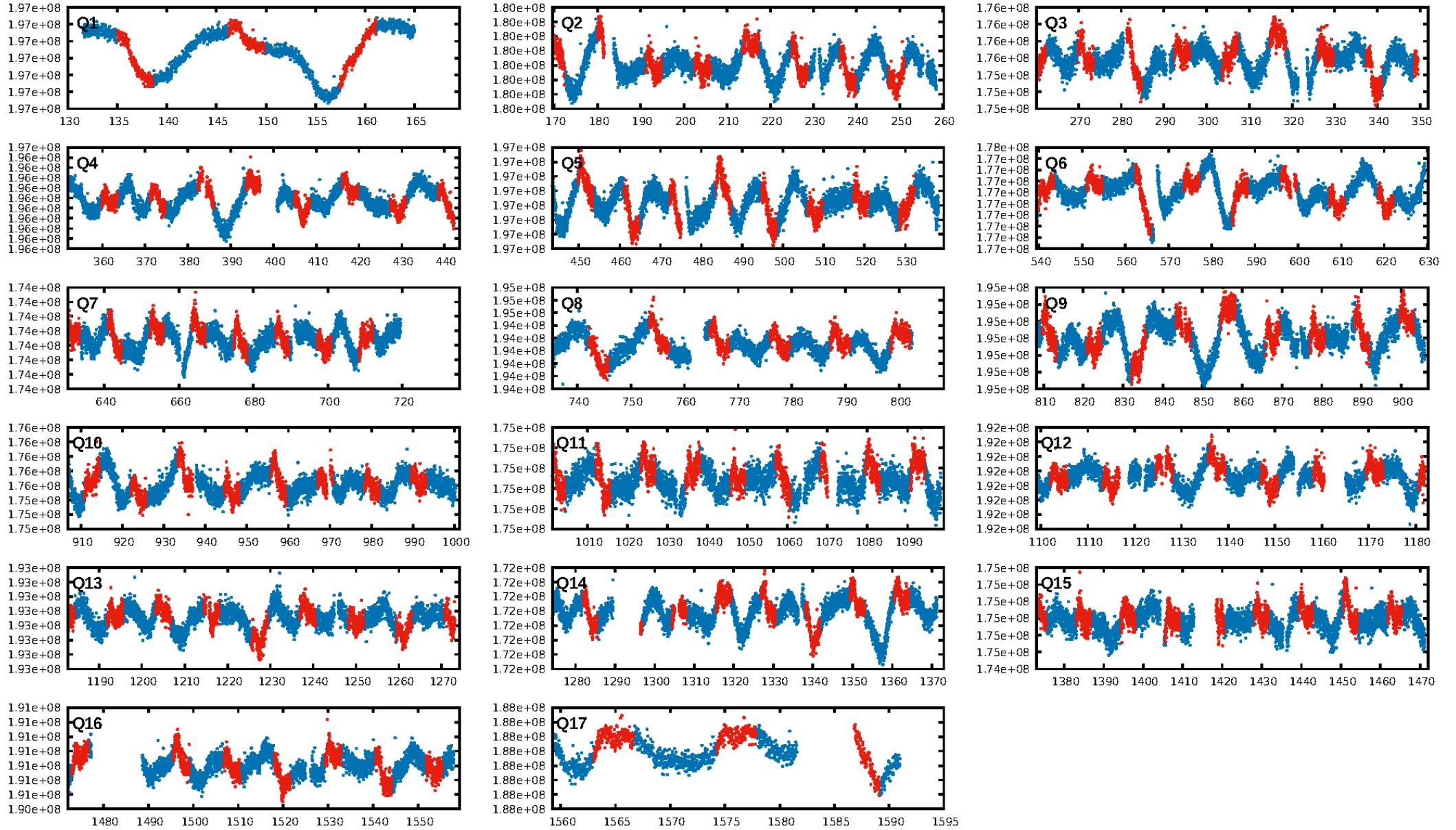
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 80.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.02e-64
RollingBand-fgt: 0.98 [116/118]
GhostDiagnostic-chr: 3.524
Centroid-sig: 12.1%
Centroid-so: 0.212 arcsec [0.93σ]
OotOffset-rm: 1.290 arcsec [1.69σ]
KicOffset-rm: 1.269 arcsec [1.70σ]
OotOffset-st: 4/2/4/4 [14]
KicOffset-st: 4/2/4/4 [14]
DiffImageQuality-fgm: 0.57 [8/14]
DiffImageOverlap-fno: 1.00 [17/17]

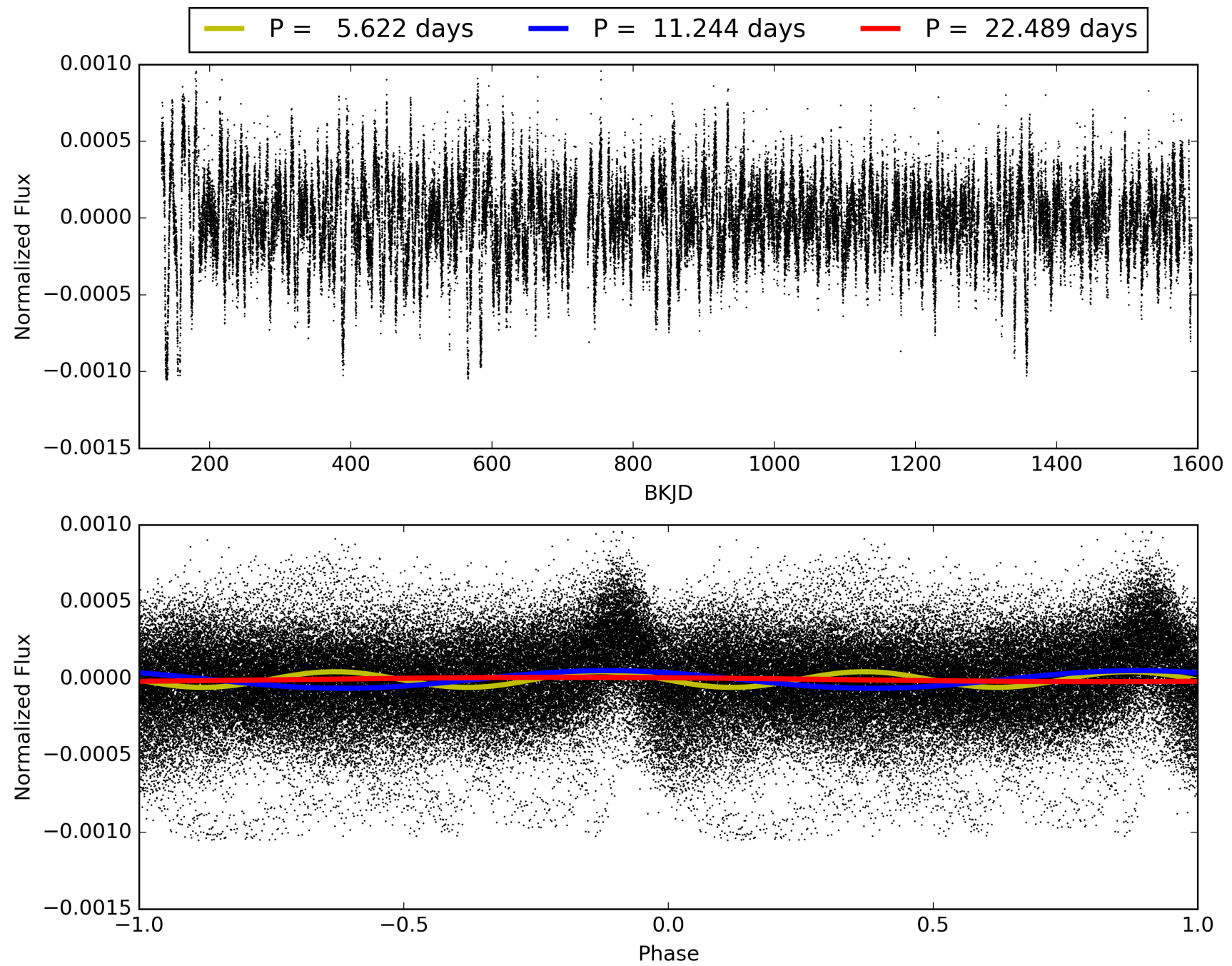
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:31:35 Z

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

TCE 006387819-01, PDC Light Curves

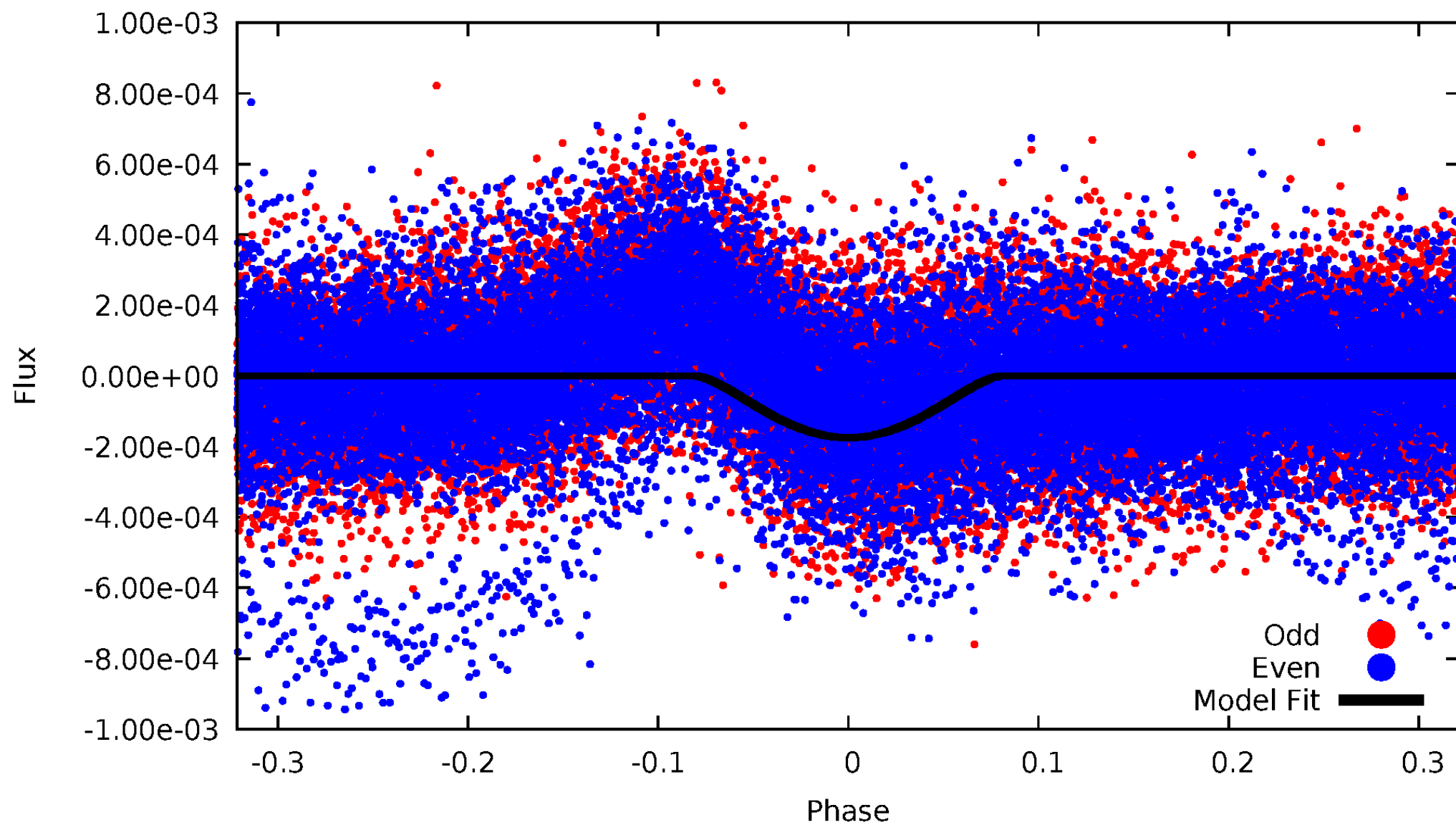


TCE 006387819-01



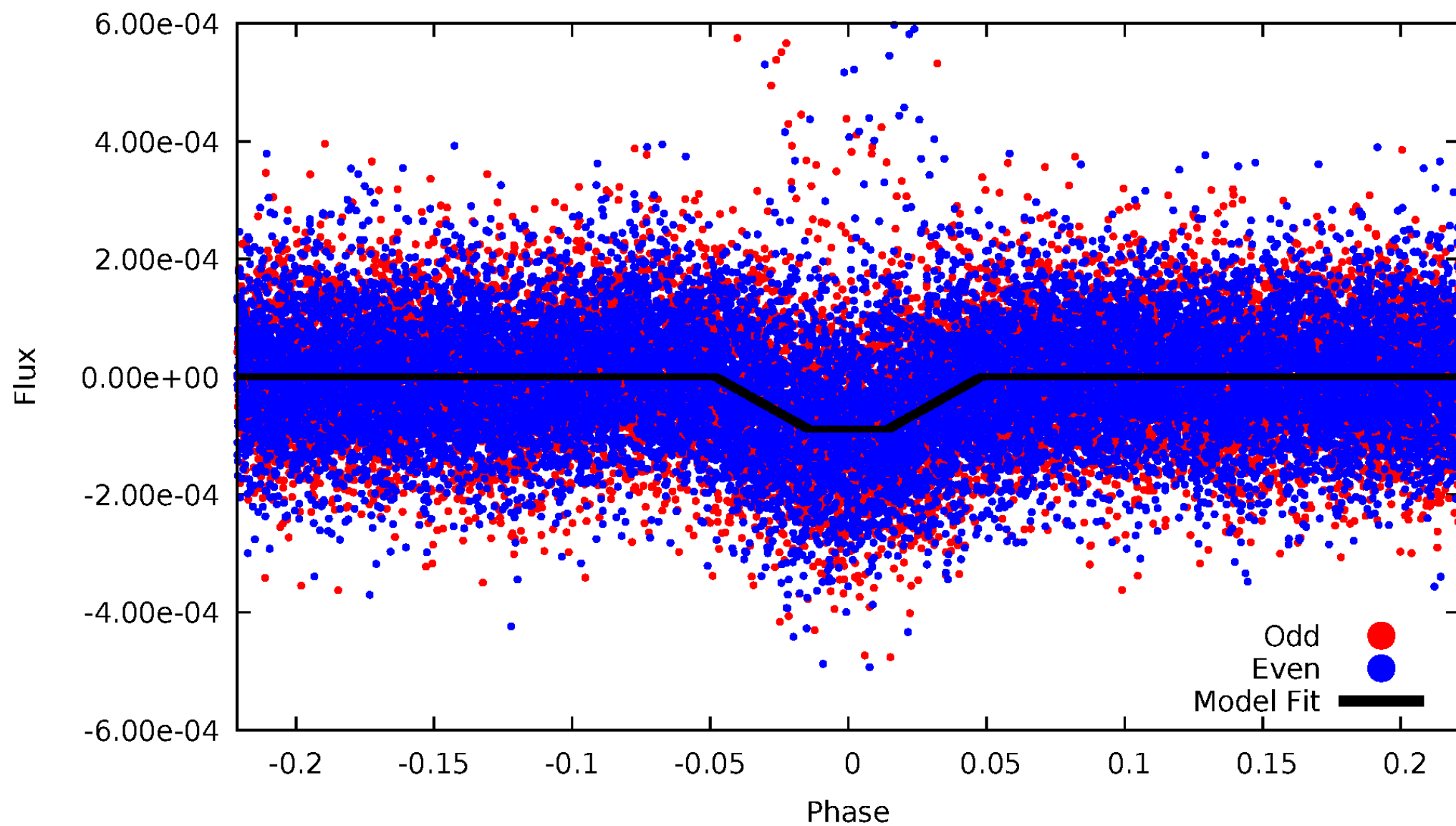
DV Odd/Even

TCE 006387819-01

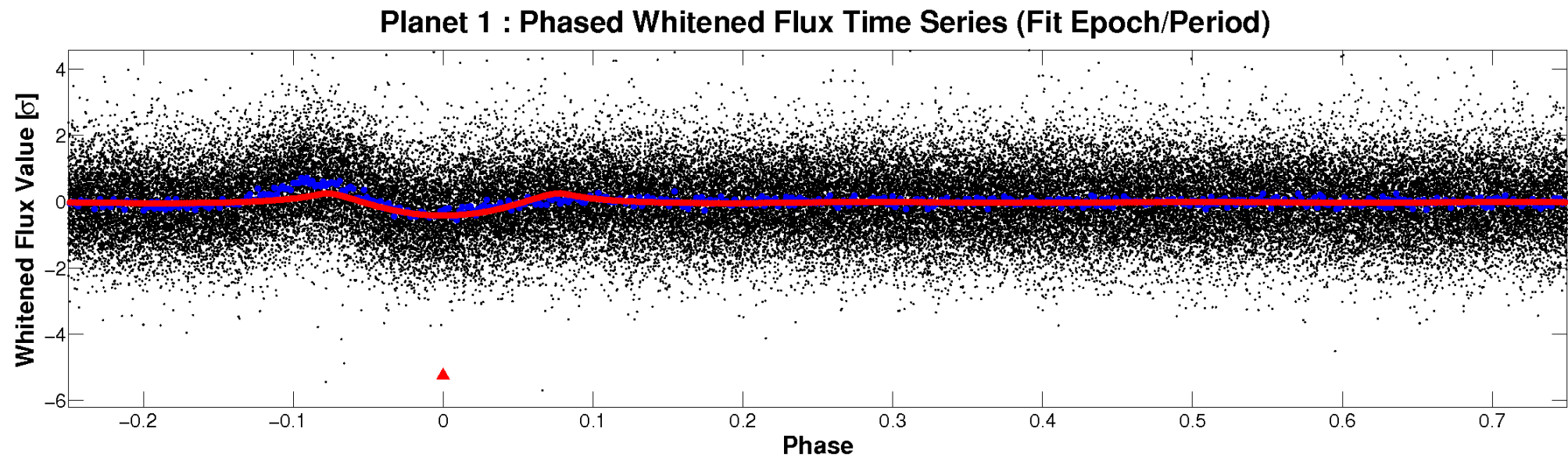
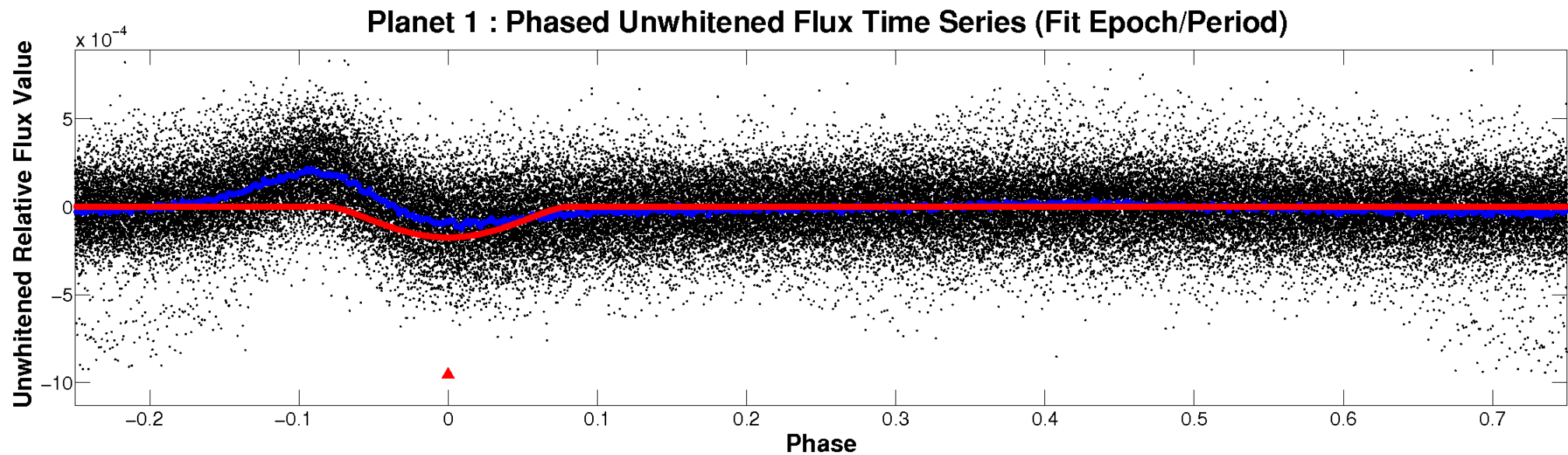


ALT Odd/Even

TCE 006387819-01

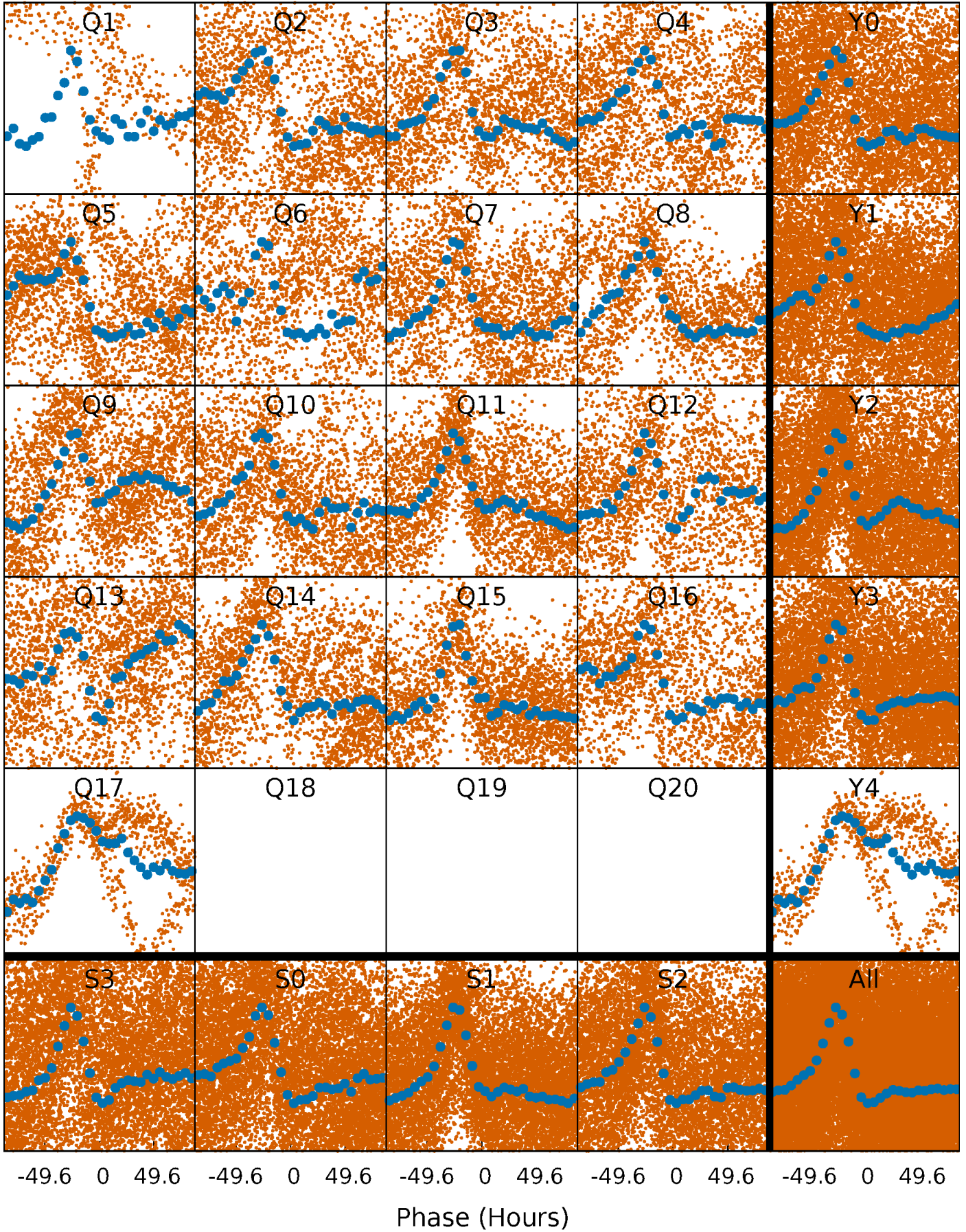


Non-Whitened Vs. Whitened Light Curve



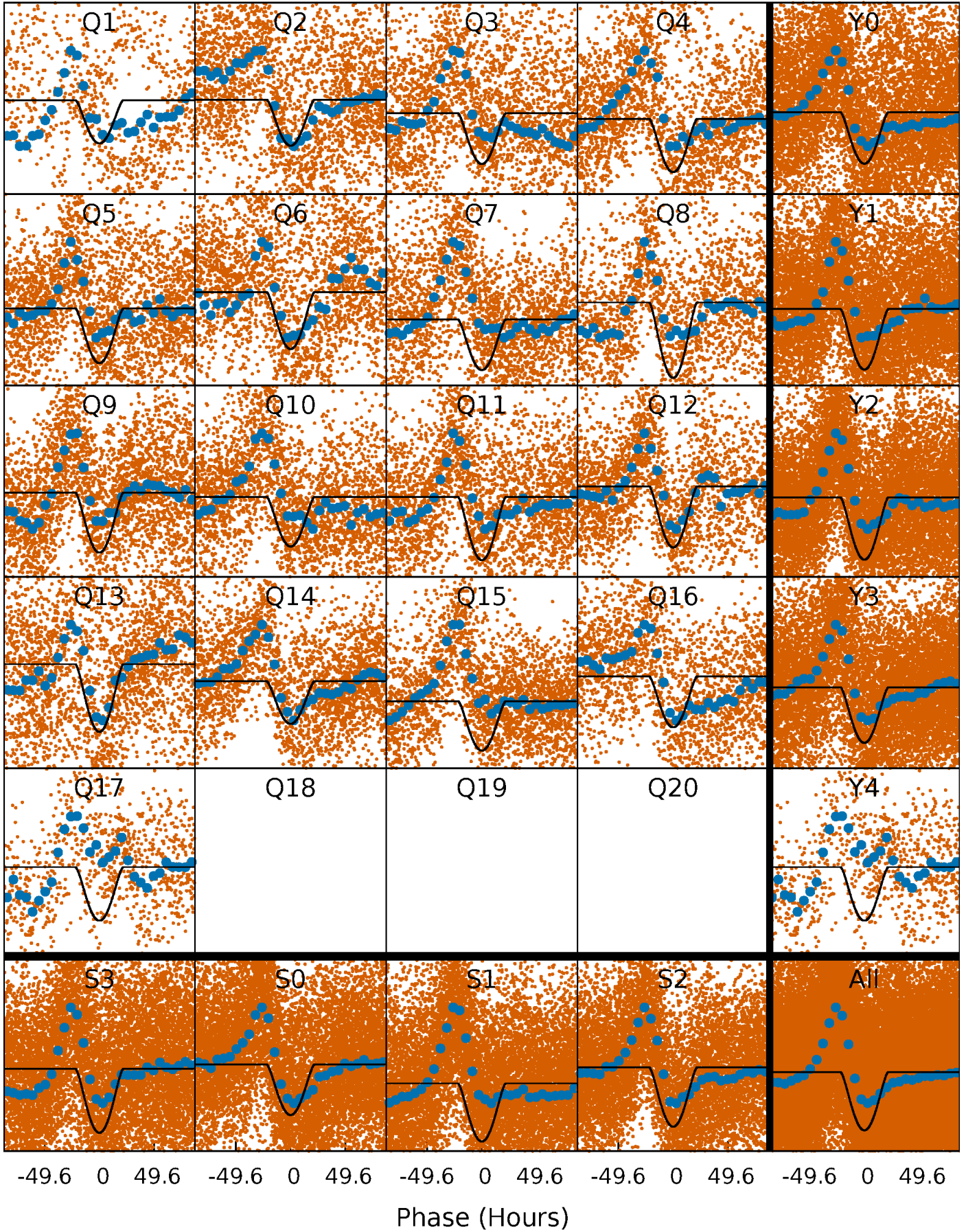
PDC Quarter-Phased Transit Curves

TCE 006387819-01 P= 11.244263 Days $T_0=136.794678$ (BKJD)



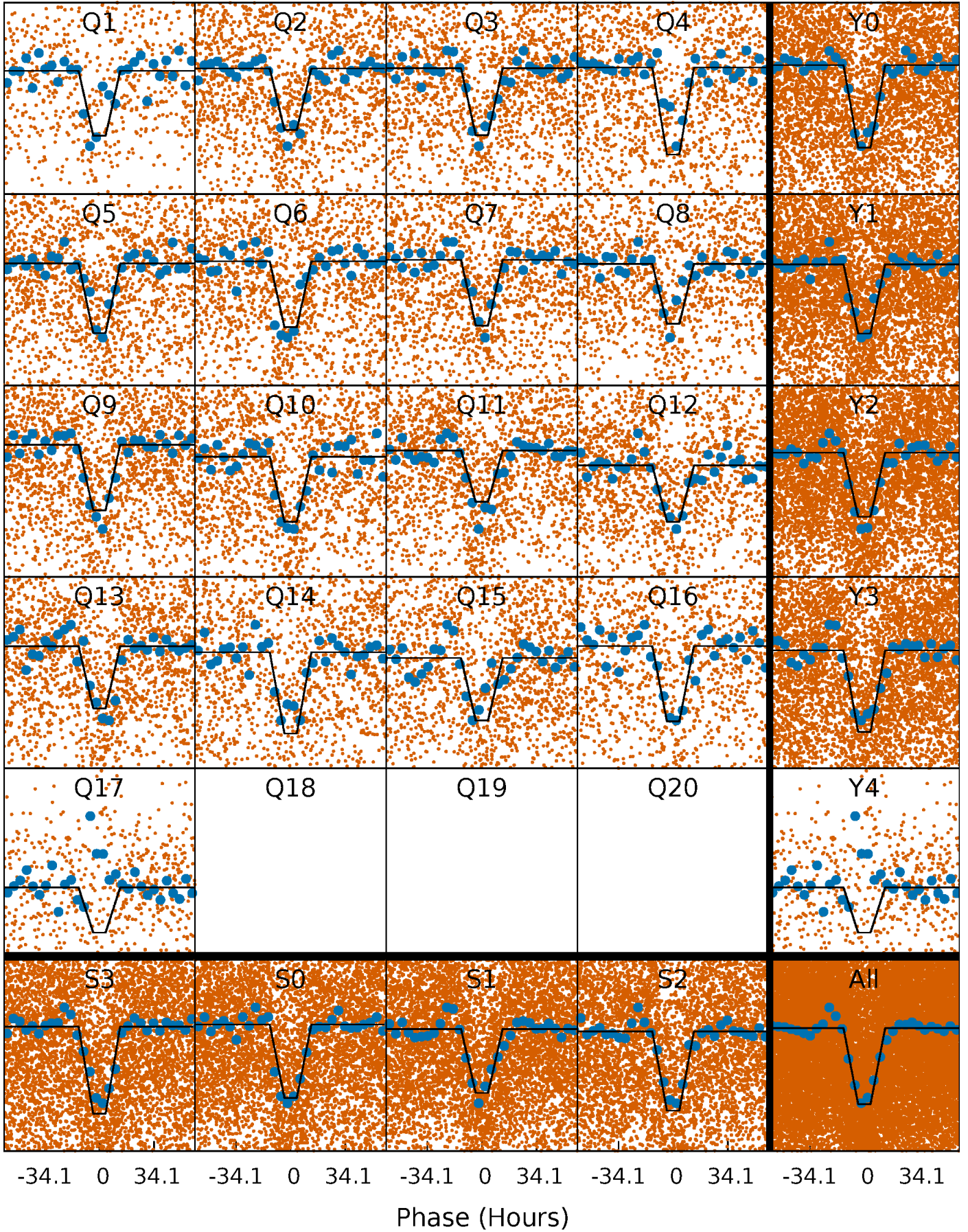
DV Quarter-Phased Transit Curves

TCE 006387819-01 P= 11.244263 Days $T_0=136.794678$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

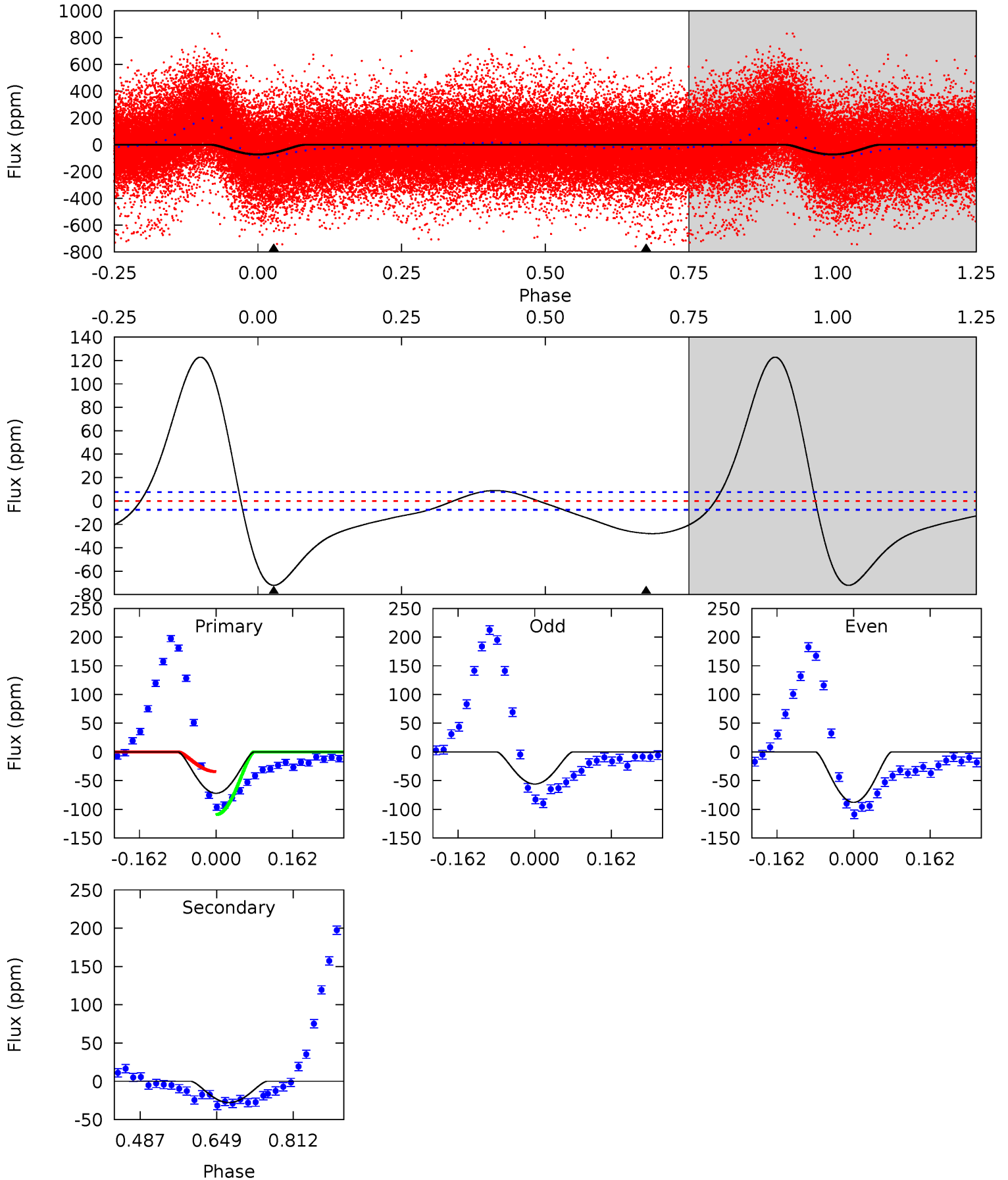
TCE 006387819-01 P= 11.244514 Days $T_0=136.604049$ (BKJD)



DV Model-Shift Uniqueness Test

006387819-01, P = 11.244263 Days, E = 125.550415 Days

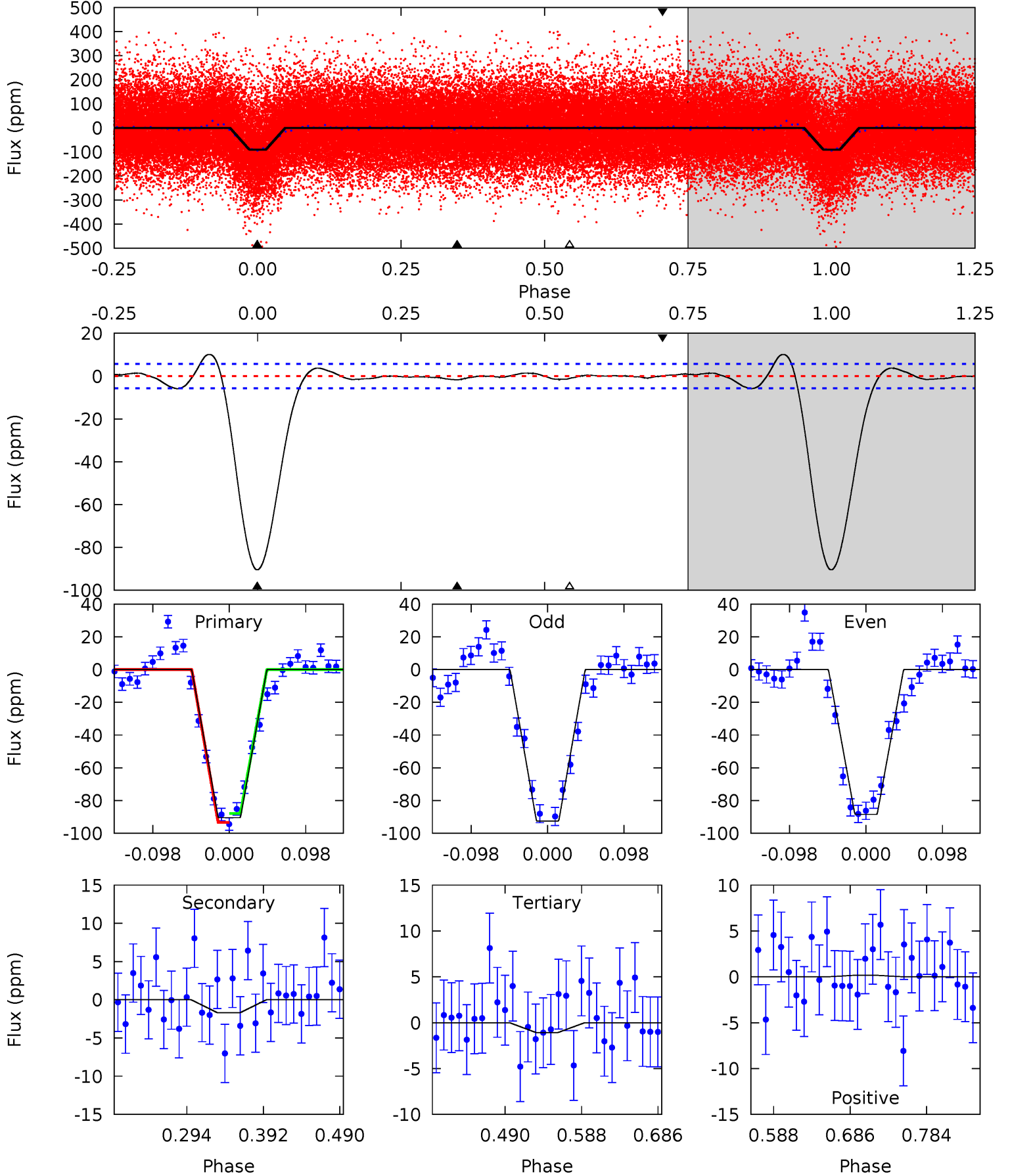
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.8	16.5	0	0	4.46	1.40	12.6	42.8	42.8	16.5	16.5	9.47	1.00	0.63	19.6



Alt Model-Shift Uniqueness Test

006387819-01, $P = 11.244514$ Days, $E = 125.359535$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.6	1.37	0.86	0.14	4.57	1.65	1.44	71.7	72.5	0.51	1.24	1.64	0.93	0.10	2.20



Stellar Parameters For KIC 006387819

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6522^{+176}_{-195}	$3.964^{+0.273}_{-0.117}$	$-0.340^{+0.300}_{-0.250}$	$1.887^{+0.406}_{-0.559}$	$1.195^{+0.211}_{-0.173}$	$0.251^{+0.395}_{-0.100}$
	+3%/-3%	+7%/-3%	+88%/-74%	+22%/-30%	+18%/-14%	+158%/-40%
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 006387819-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 2	$4.78^{+2.11}_{-1.91}$	1678^{+111}_{-136}	3488^{+677}_{-362}	$7.191^{+13.349}_{-3.633}$
Alt.	-2 ± 1	$2.20^{+1.79}_{-1.47}$	1677^{+110}_{-127}	2798^{+1298}_{-4408}	$1.842^{+16.216}_{-1.549}$

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 $A_{obs} \gg 1.0$

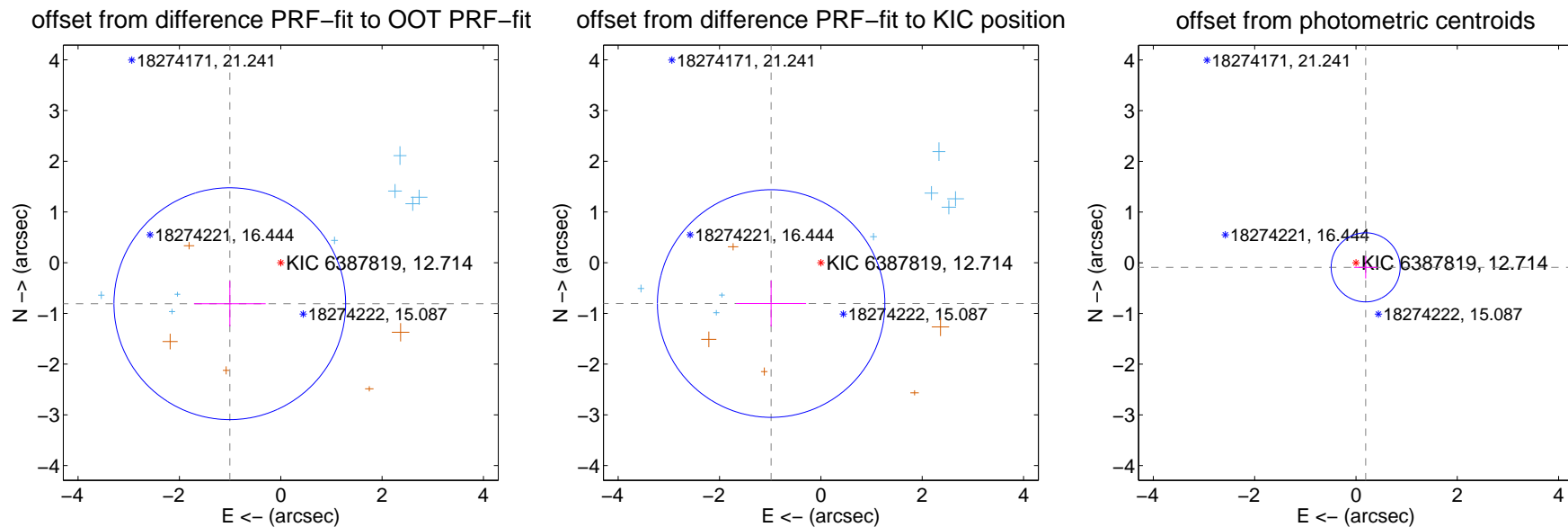
DV Centroid Data

Supplemental centroid analysis for 006387819-01. Kepler magnitude: 12.71. Transit SNR 28.49

There are 8 quarters with good PRF difference image offsets

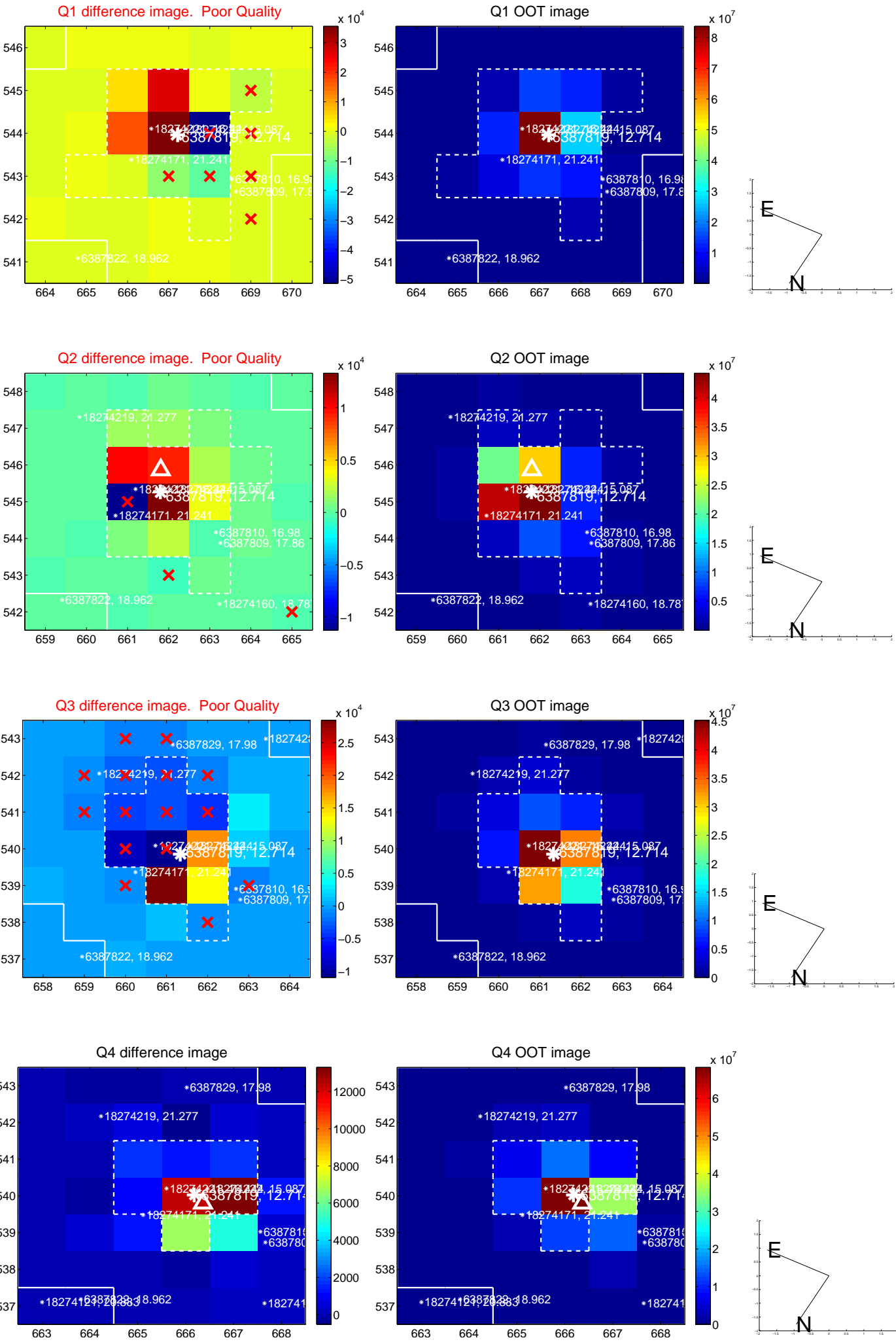
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.290 ± 0.762	1.69	1.005 ± 0.708	-0.809 ± 0.447
PRF-fit source offset from KIC position	1.269 ± 0.748	1.70	0.981 ± 0.689	-0.805 ± 0.454
photometric centroid source offset	0.21 ± 0.23	0.93	-0.19 ± 0.23	-0.09 ± 0.22

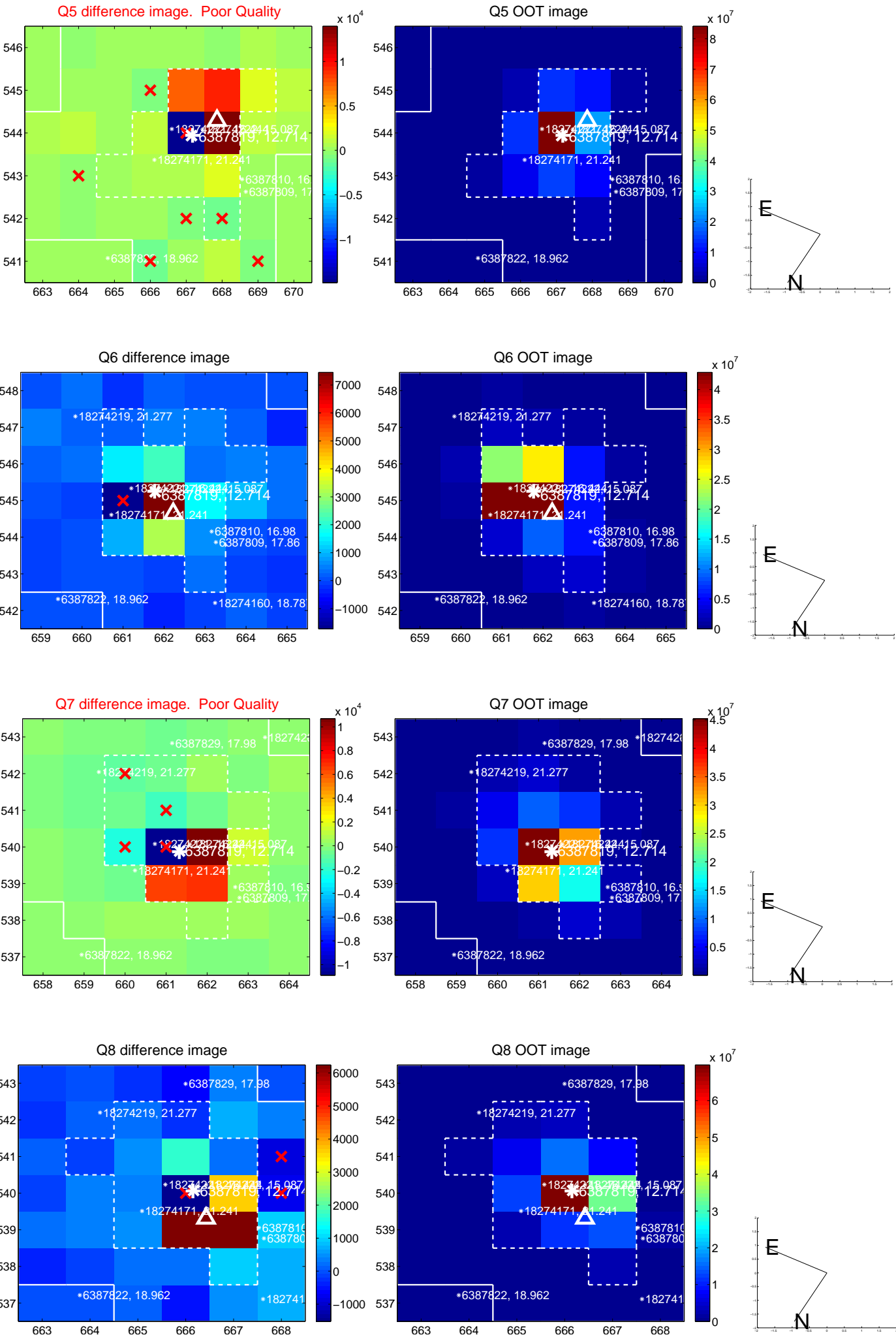


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

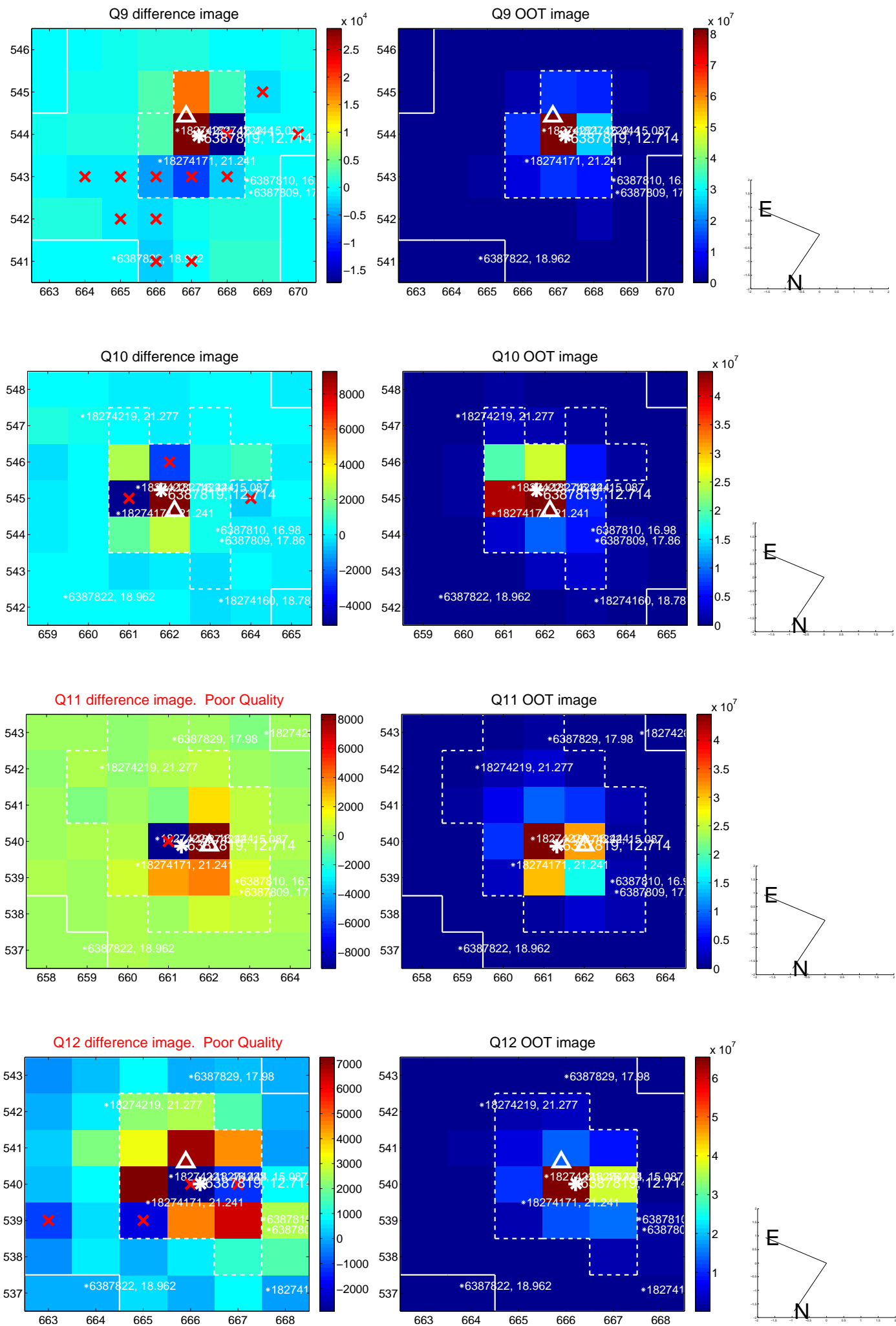
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



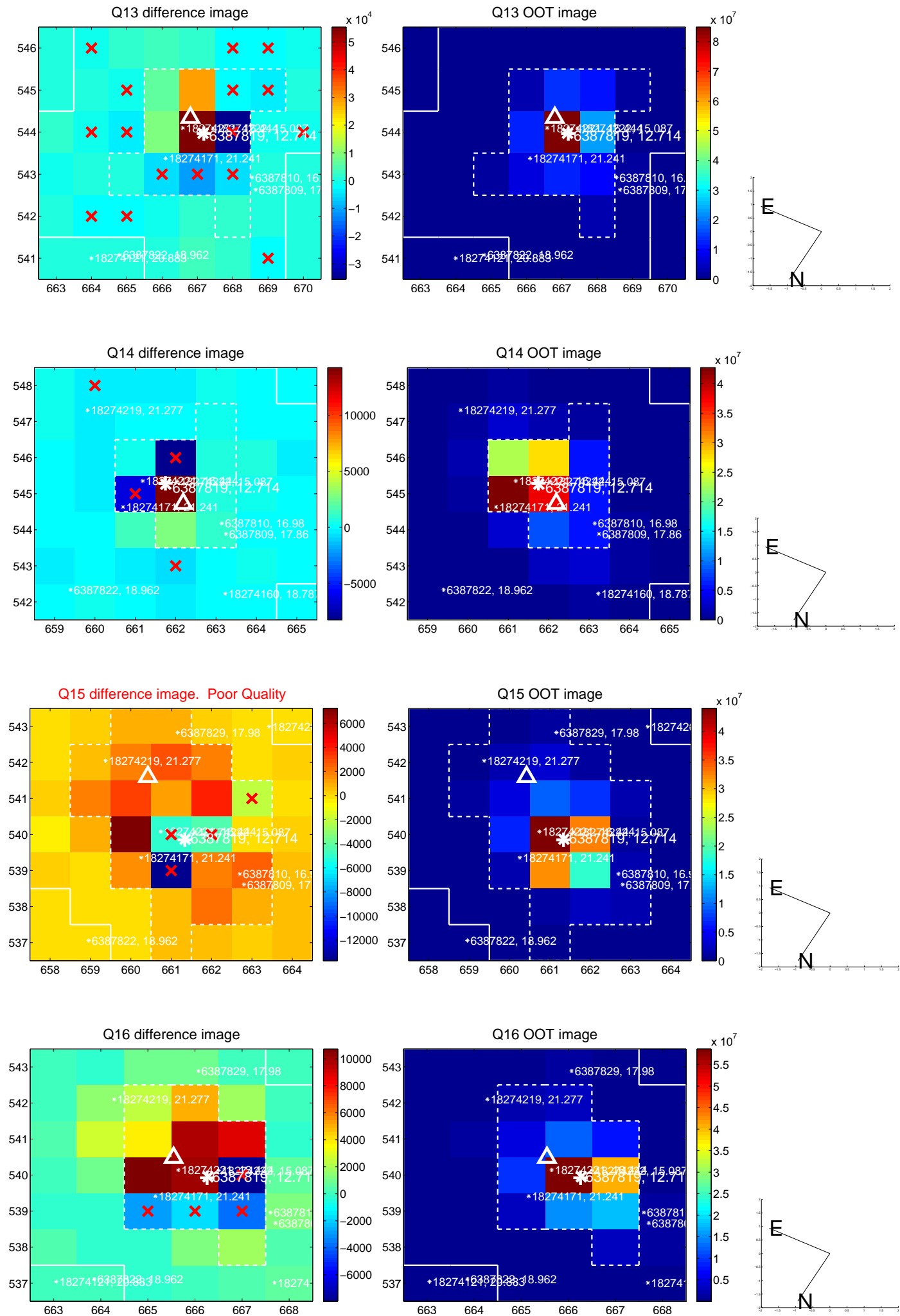
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



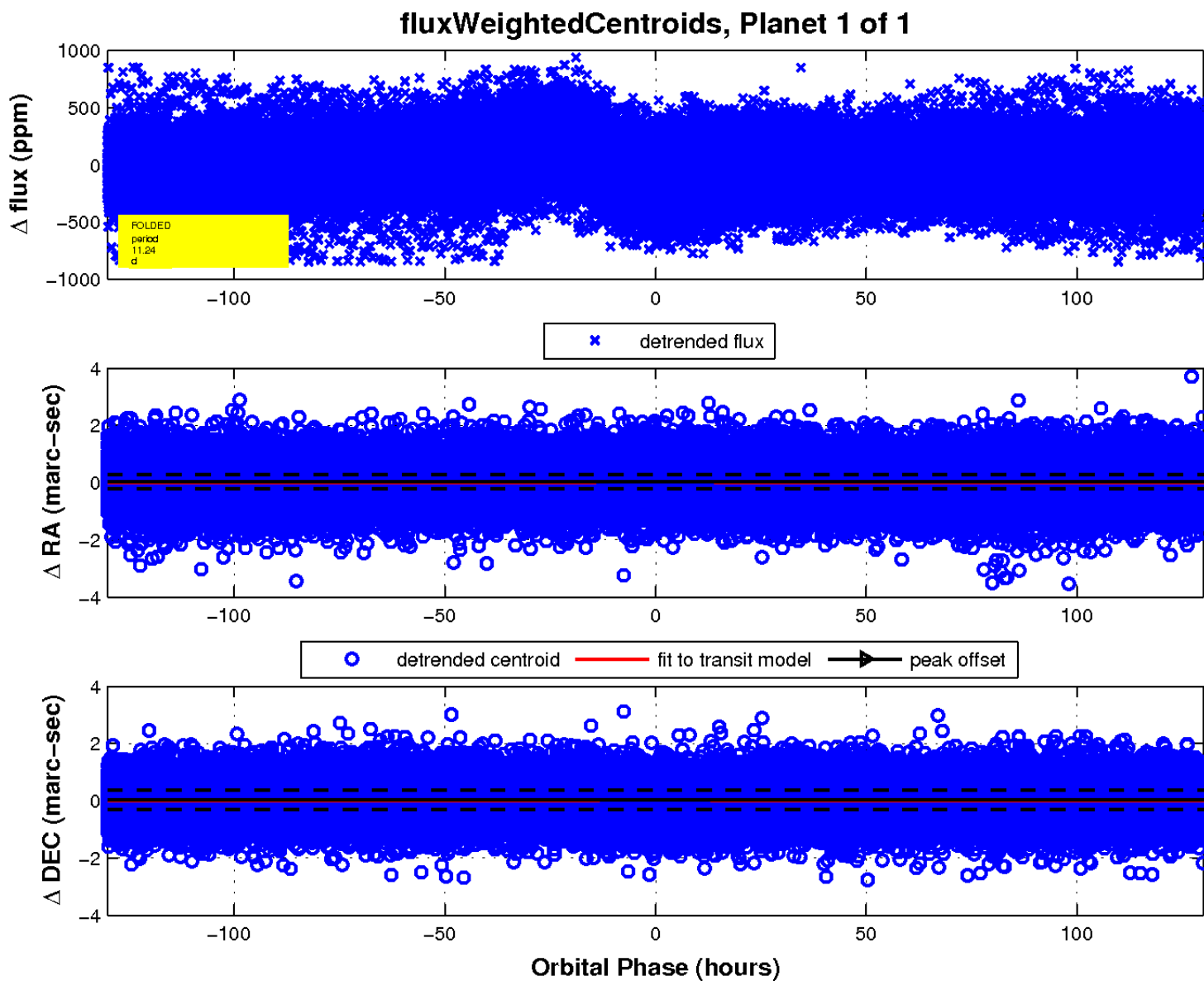
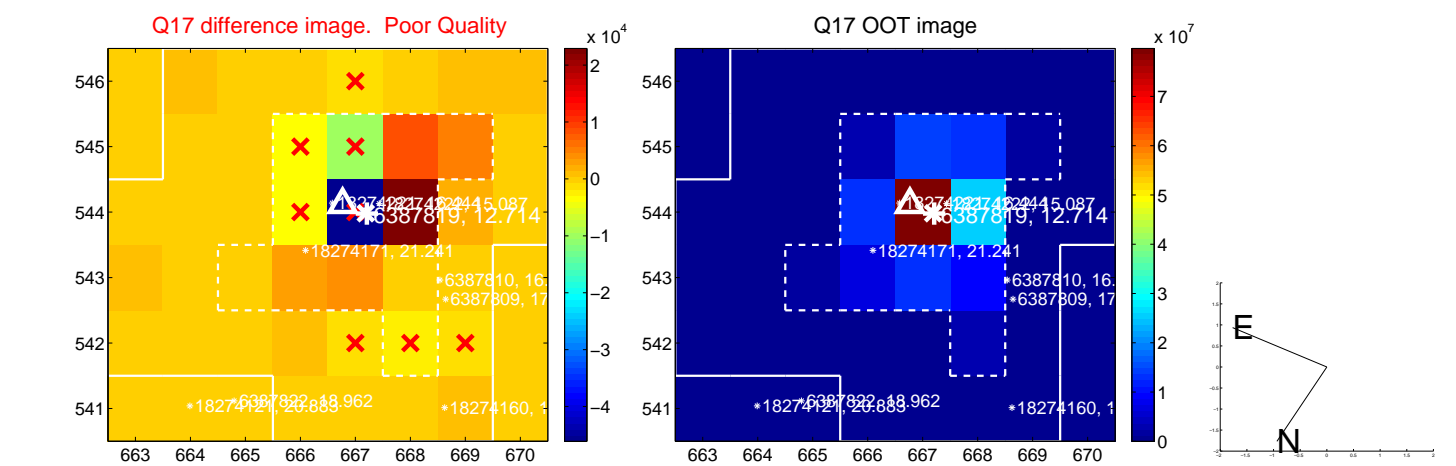
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UKIRT Image

