

KIC 007729156

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})
007729156-01	OBS	No	0.677533	132.198656	5.4	5.762	487.2	12.5	2.14	9001	0.52	71498.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007729156-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

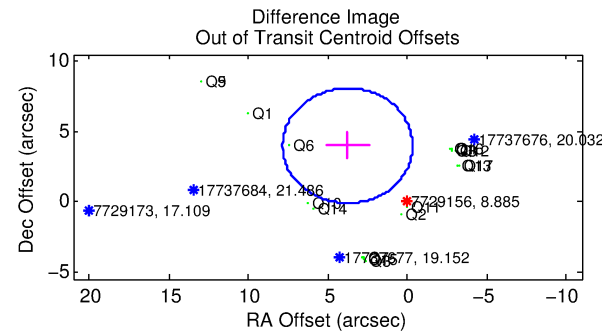
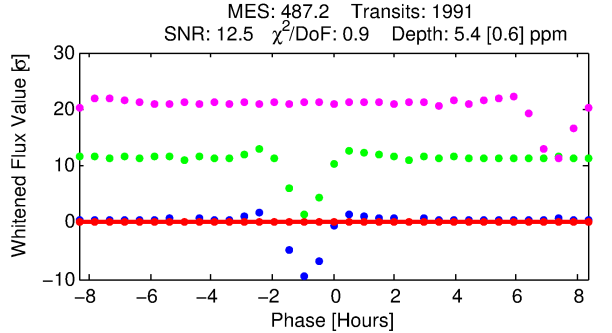
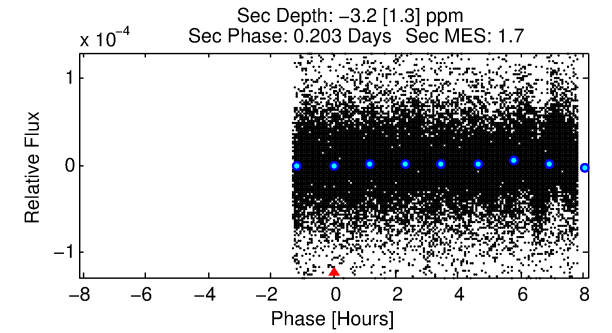
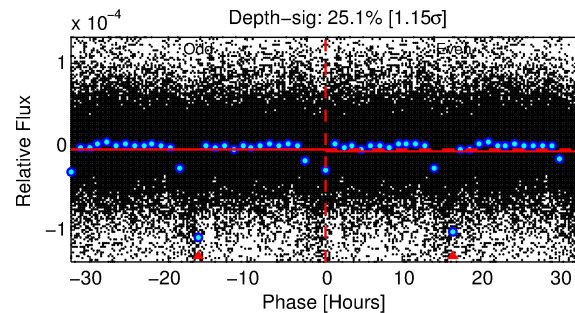
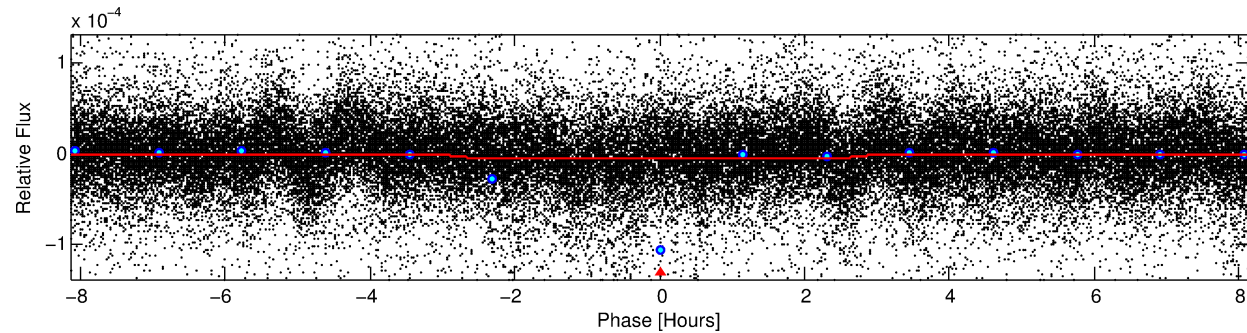
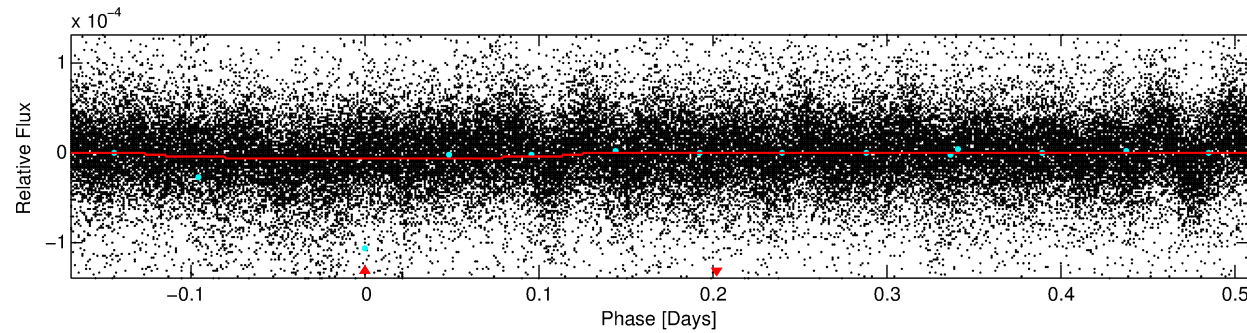
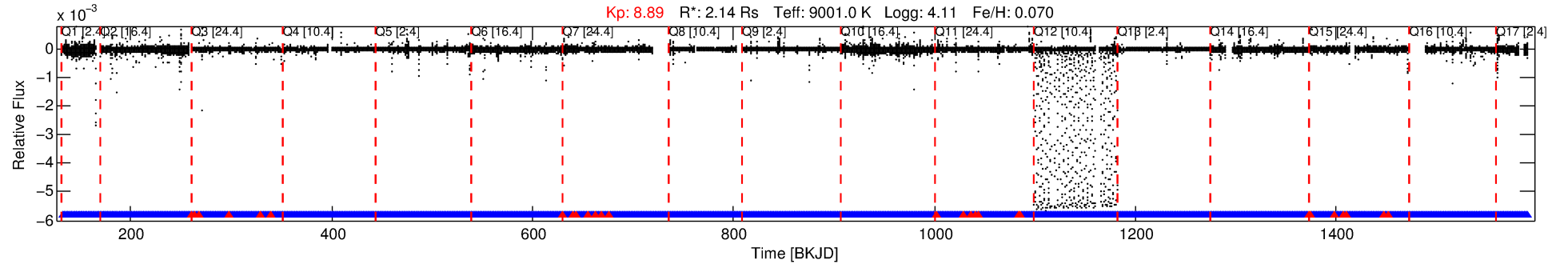
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007729156-01

No Significant Match Found

DV One-Page Summary

KIC: 7729156 Candidate: 1 of 1 Period: 0.678 d



DV Fit Results:

Period = 0.67753 [0.00001] d
Epoch = 132.1987 [0.0025] BKJD
Rp/R* = 0.0022 [0.0007]
a/R* = 1.10 [0.38]
b = 0.41 [4.10]
Seff = 71498.94 [26825.72]
Teq = 4170 [391] K
Rp = 0.52 [0.22] Re
a = 0.0194 [0.0046] AU
Ag = N/A
Teffp = N/A

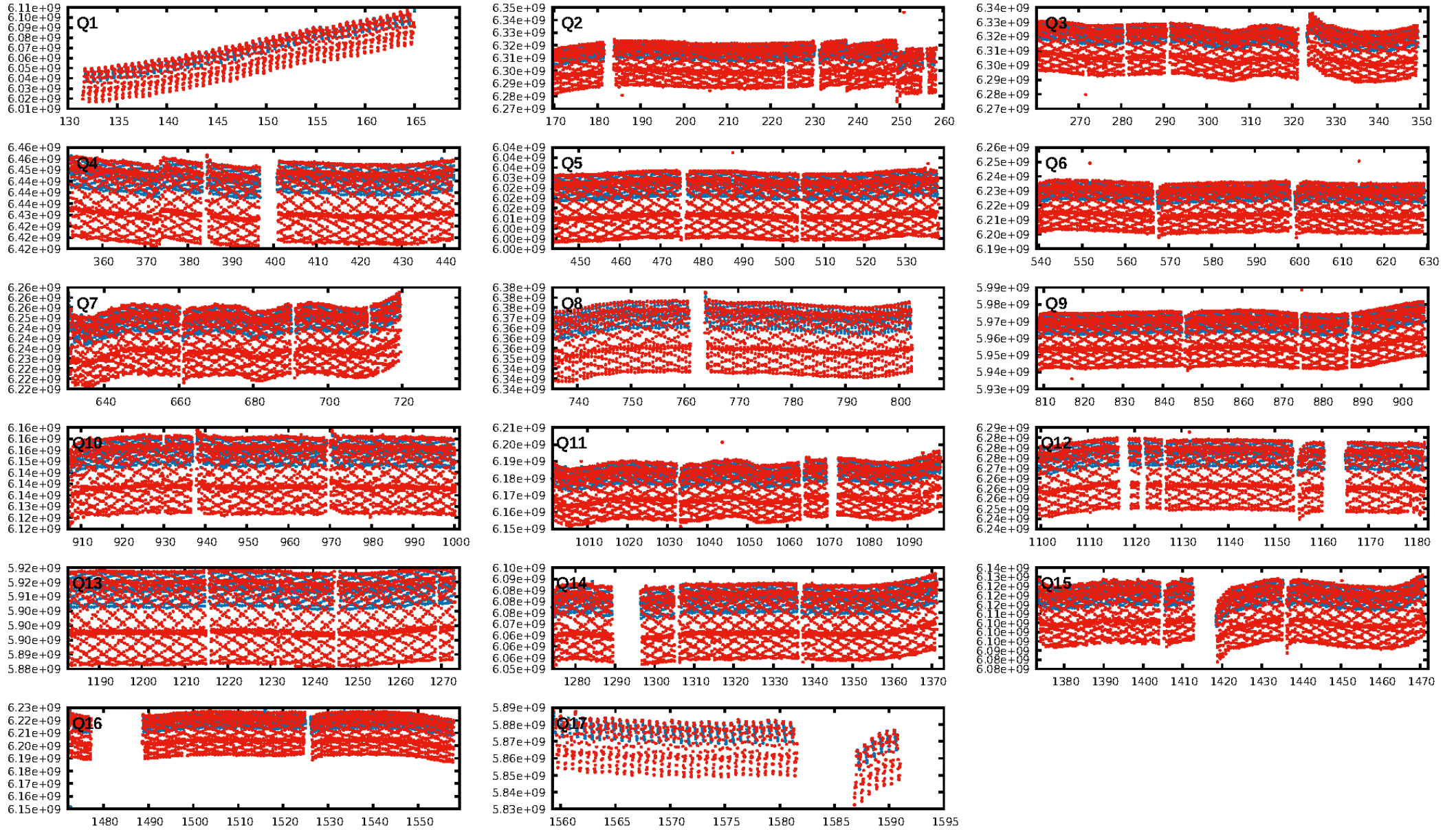
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1874/1901]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.1%
Centroid-so: 5.274 arcsec [2.23 σ]
OotOffset-rm: 5.468 arcsec [4.01 σ]
KicOffset-rm: 7.859 arcsec [5.39 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

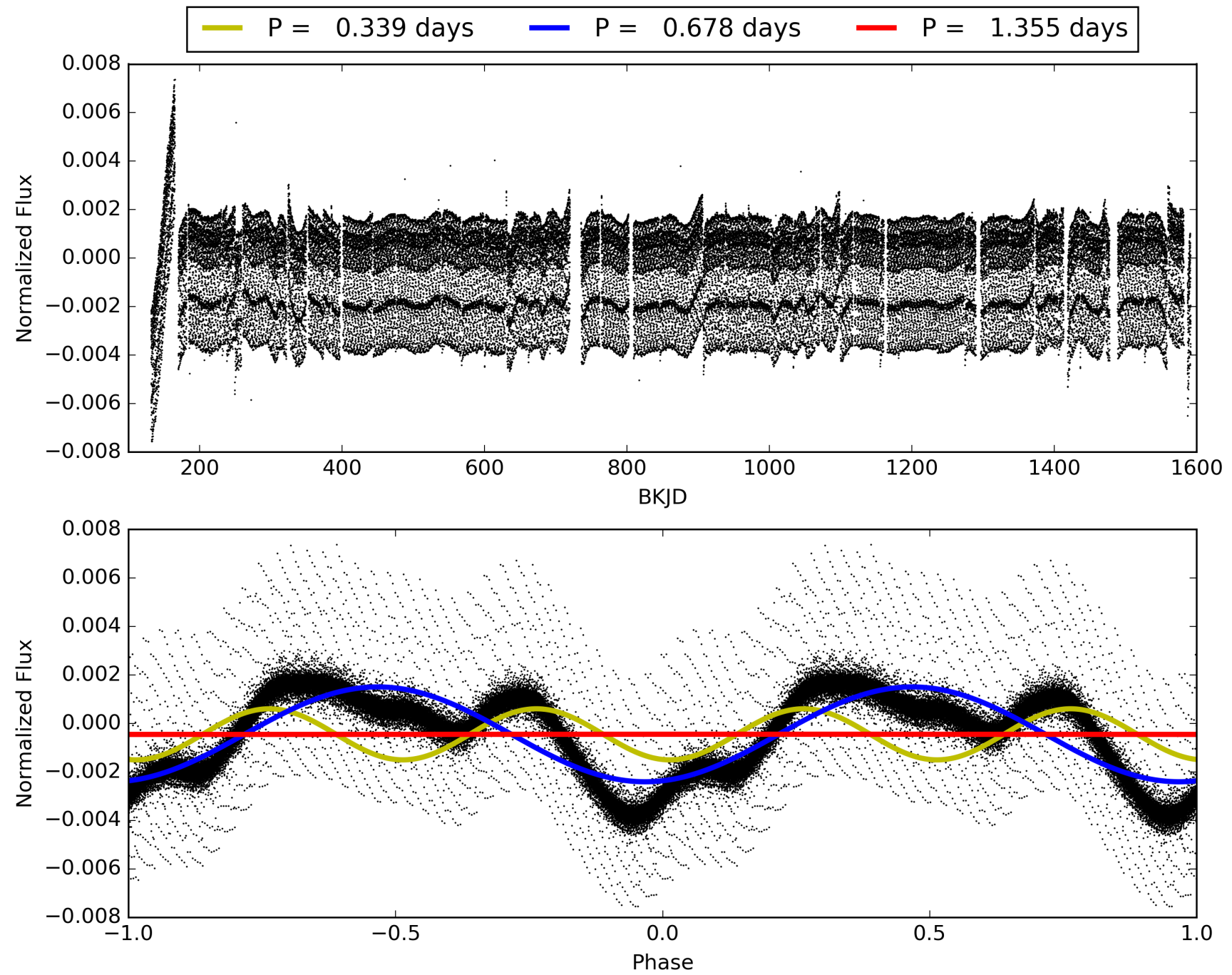
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 06:27:57 Z

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

TCE 007729156-01, PDC Light Curves

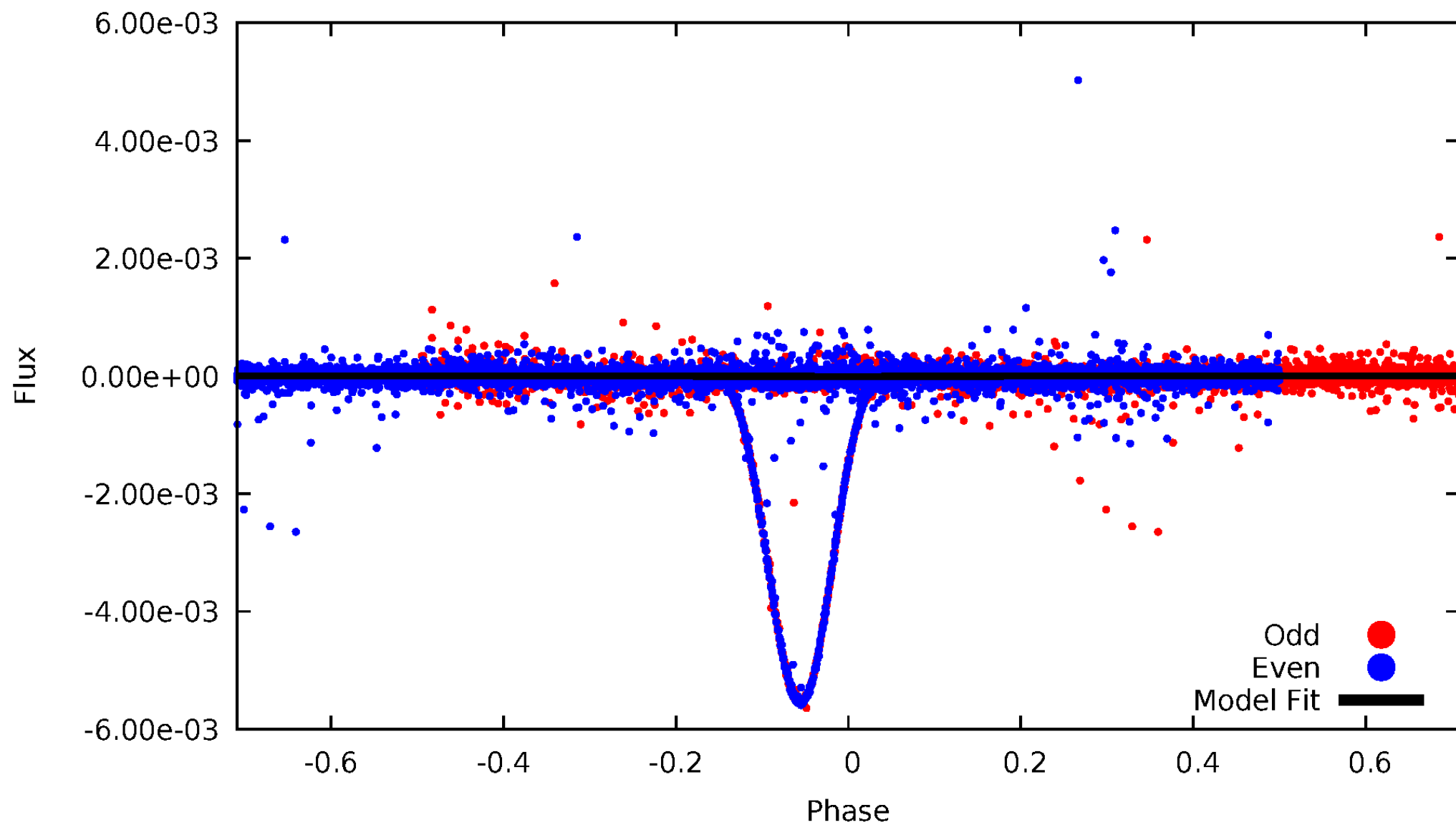


TCE 007729156-01



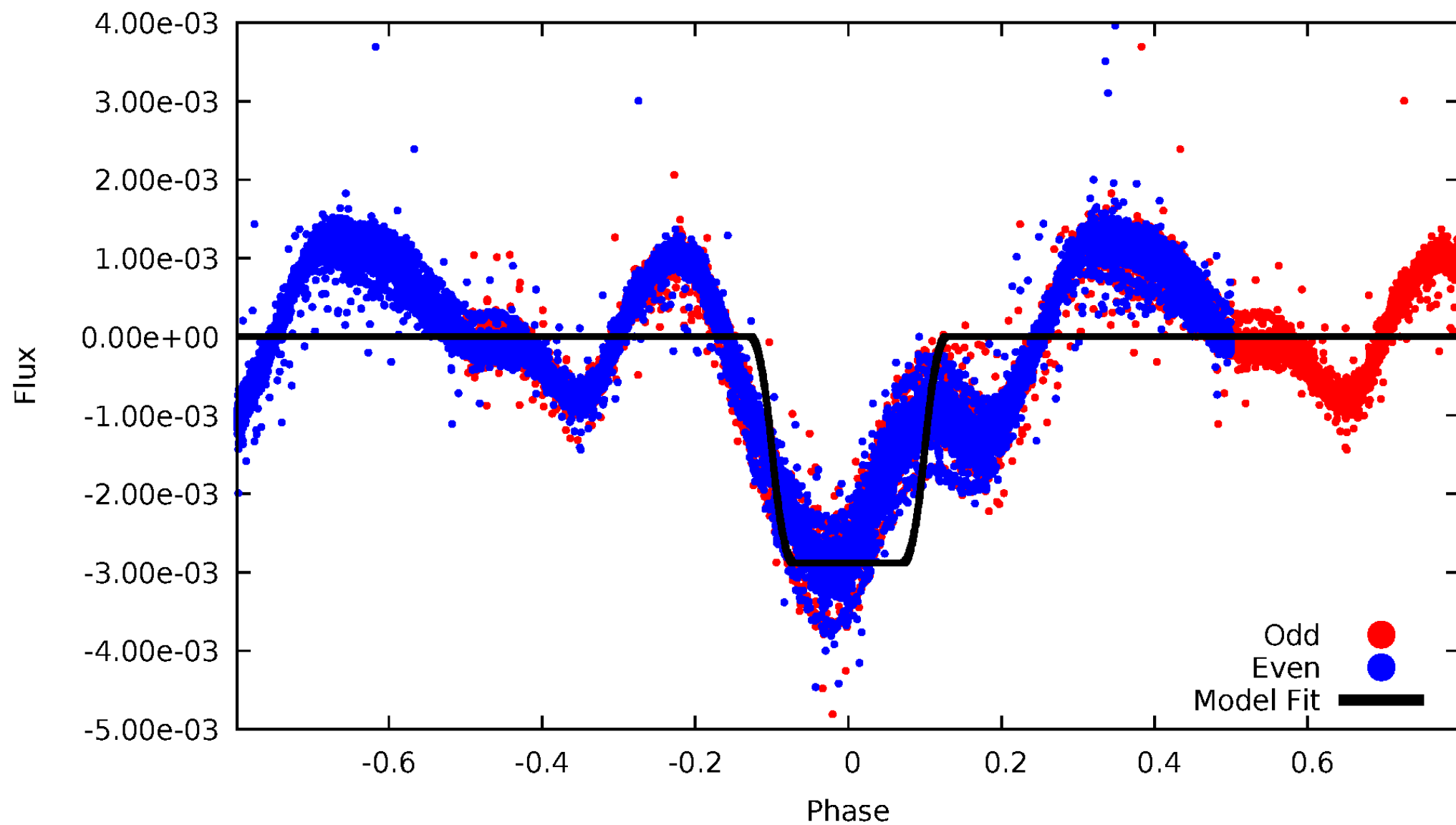
DV Odd/Even

TCE 007729156-01



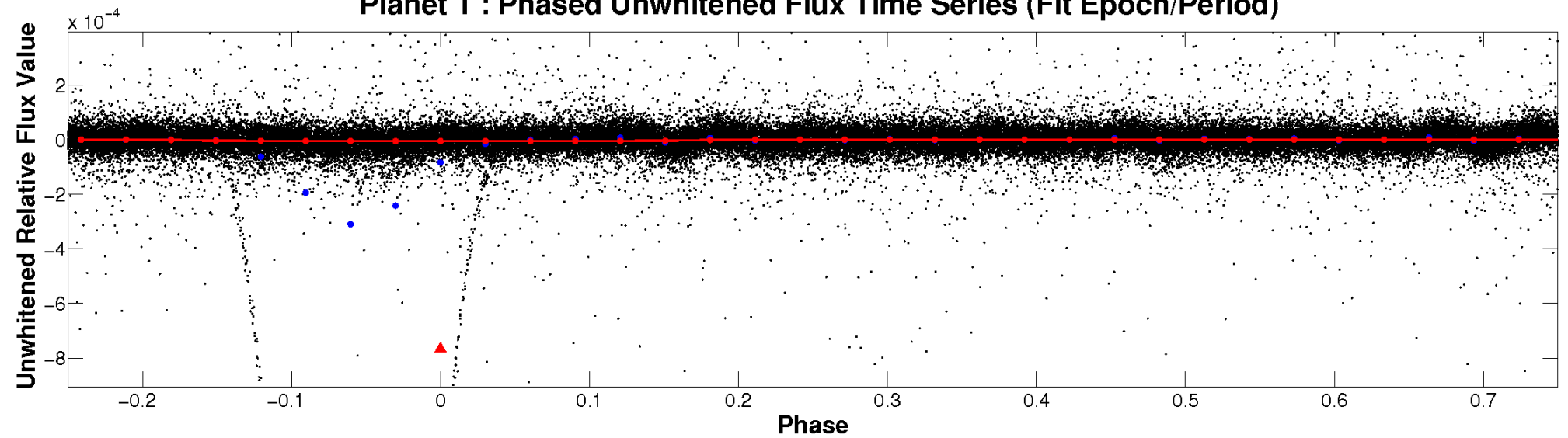
ALT Odd/Even

TCE 007729156-01

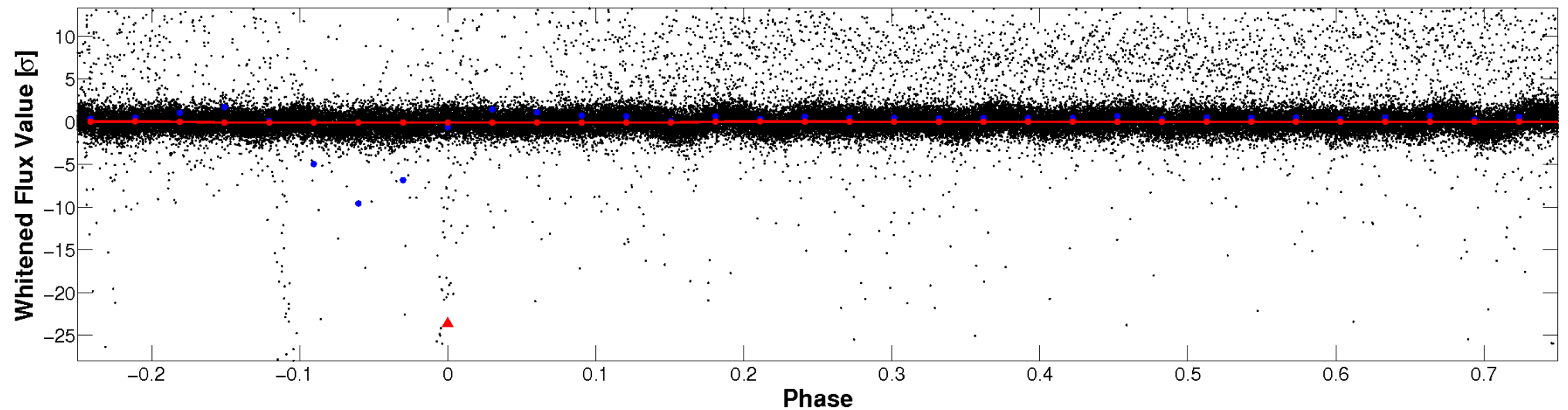


Non-Whitened Vs. Whitened Light Curve

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

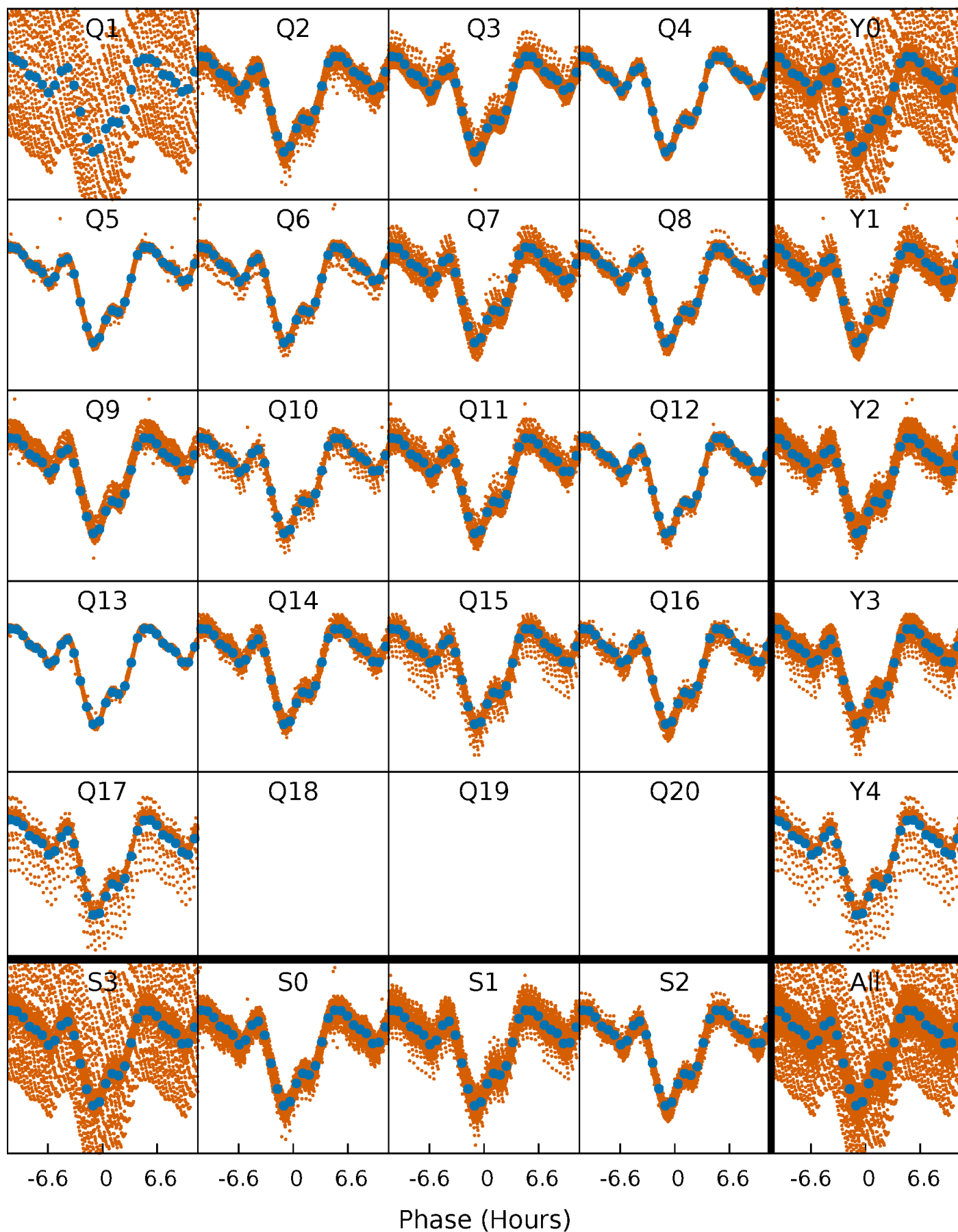


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



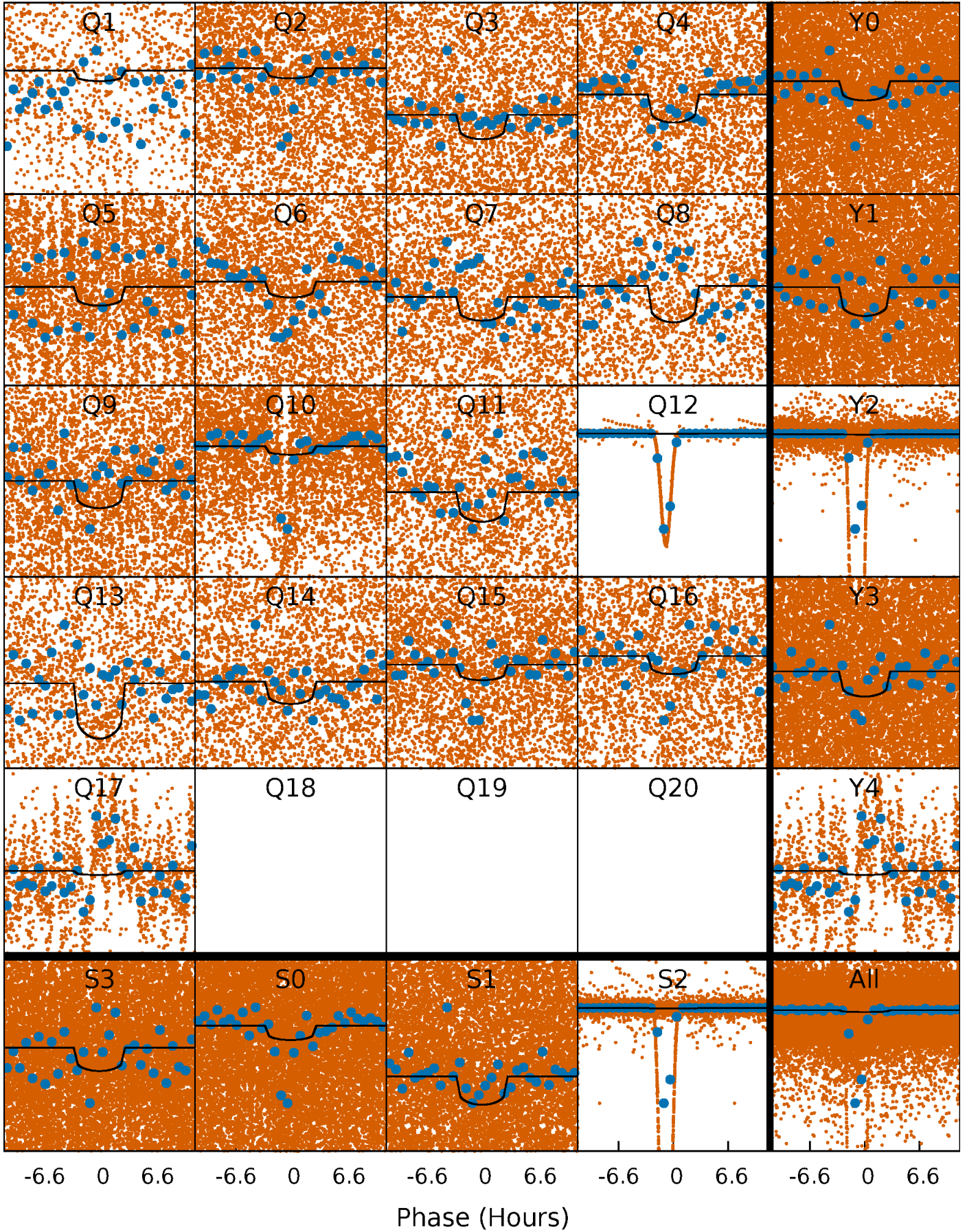
PDC Quarter-Phased Transit Curves

TCE 007729156-01 P= 0.677533 Days $T_0=132.198656$ (BKJD)



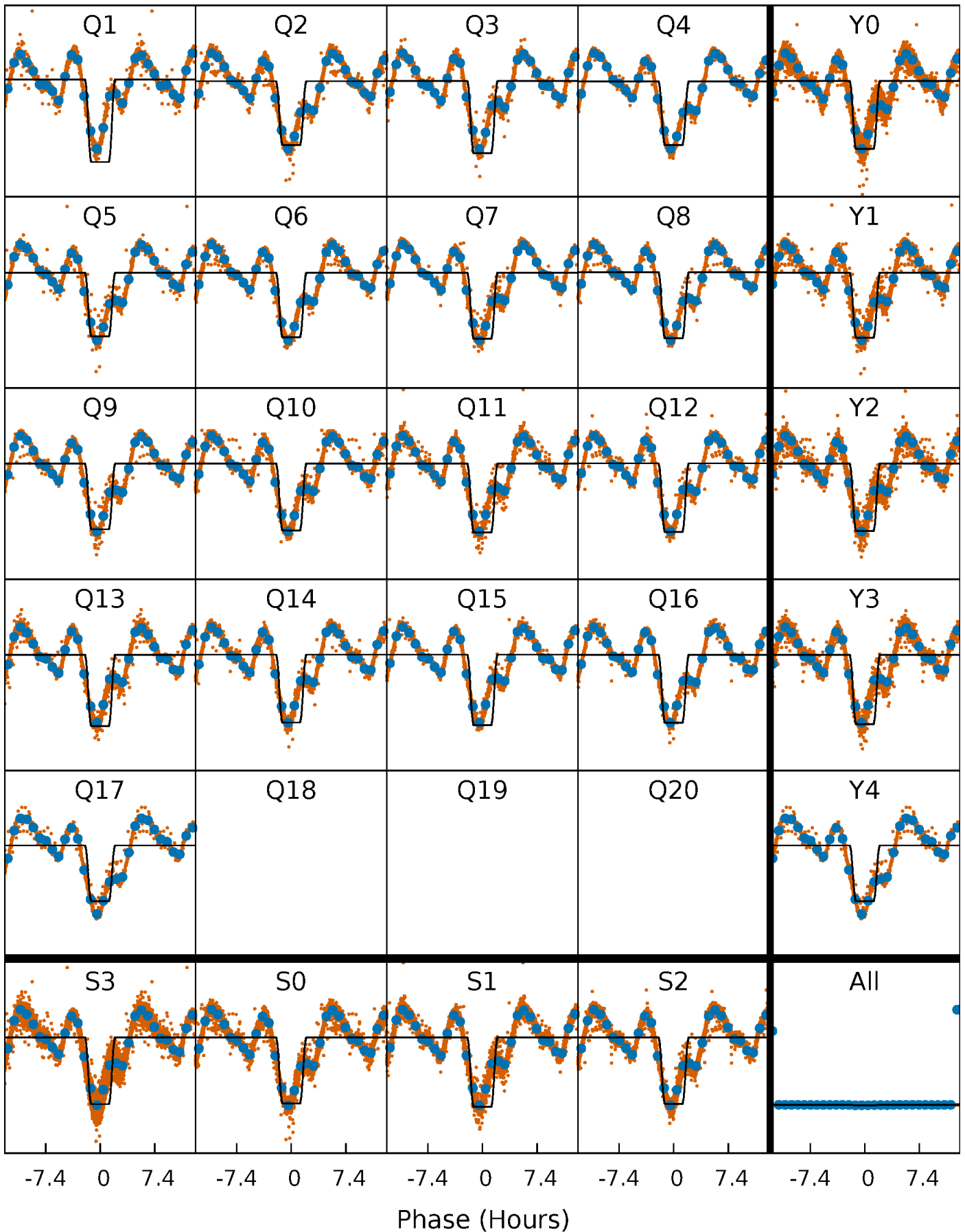
DV Quarter-Phased Transit Curves

TCE 007729156-01 P= 0.677533 Days $T_0=132.198656$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

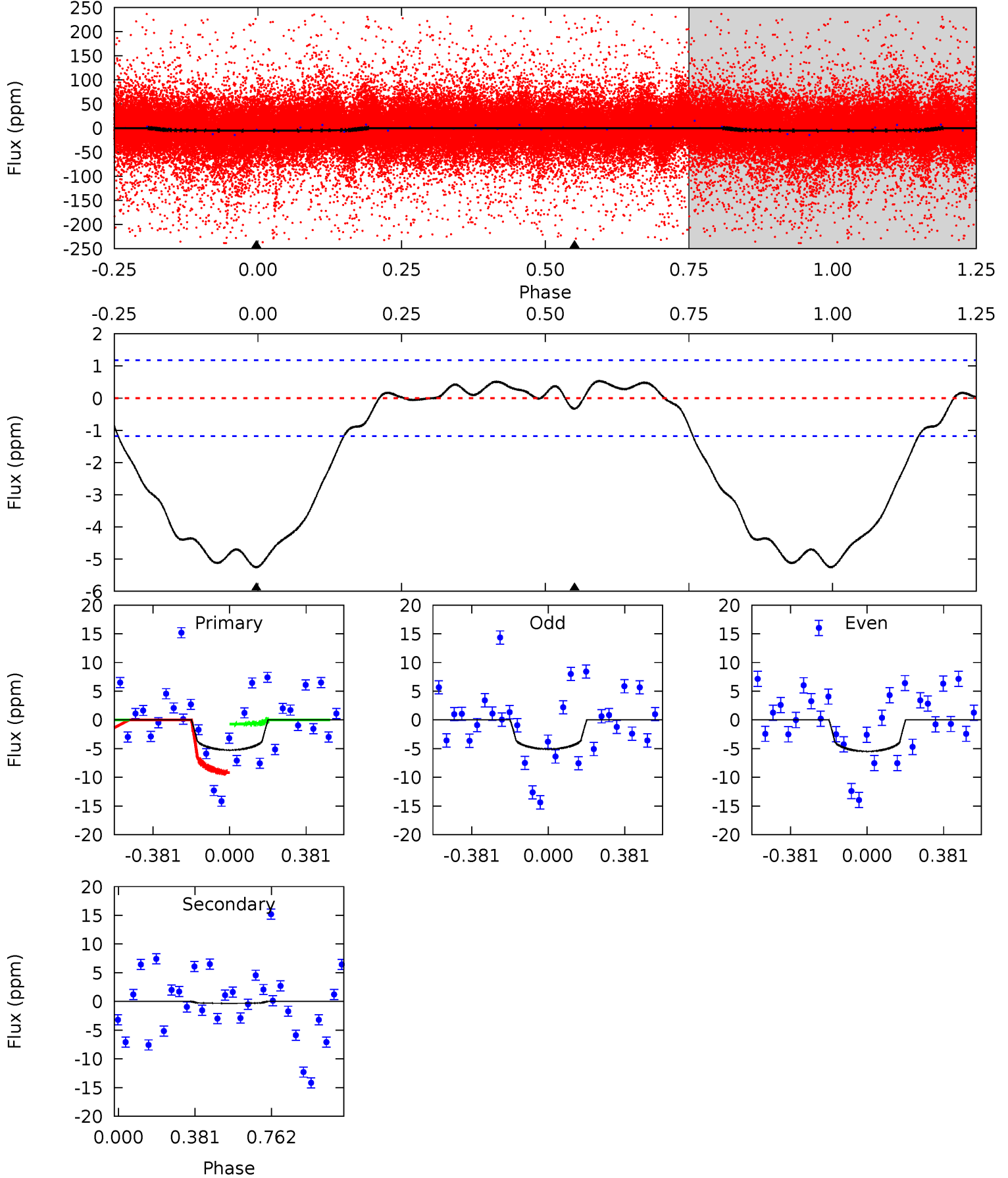
TCE 007729156-01 P= 0.677538 Days $T_0=132.168781$ (BKJD)



DV Model-Shift Uniqueness Test

007729156-01, P = 0.677533 Days, E = 130.843590 Days

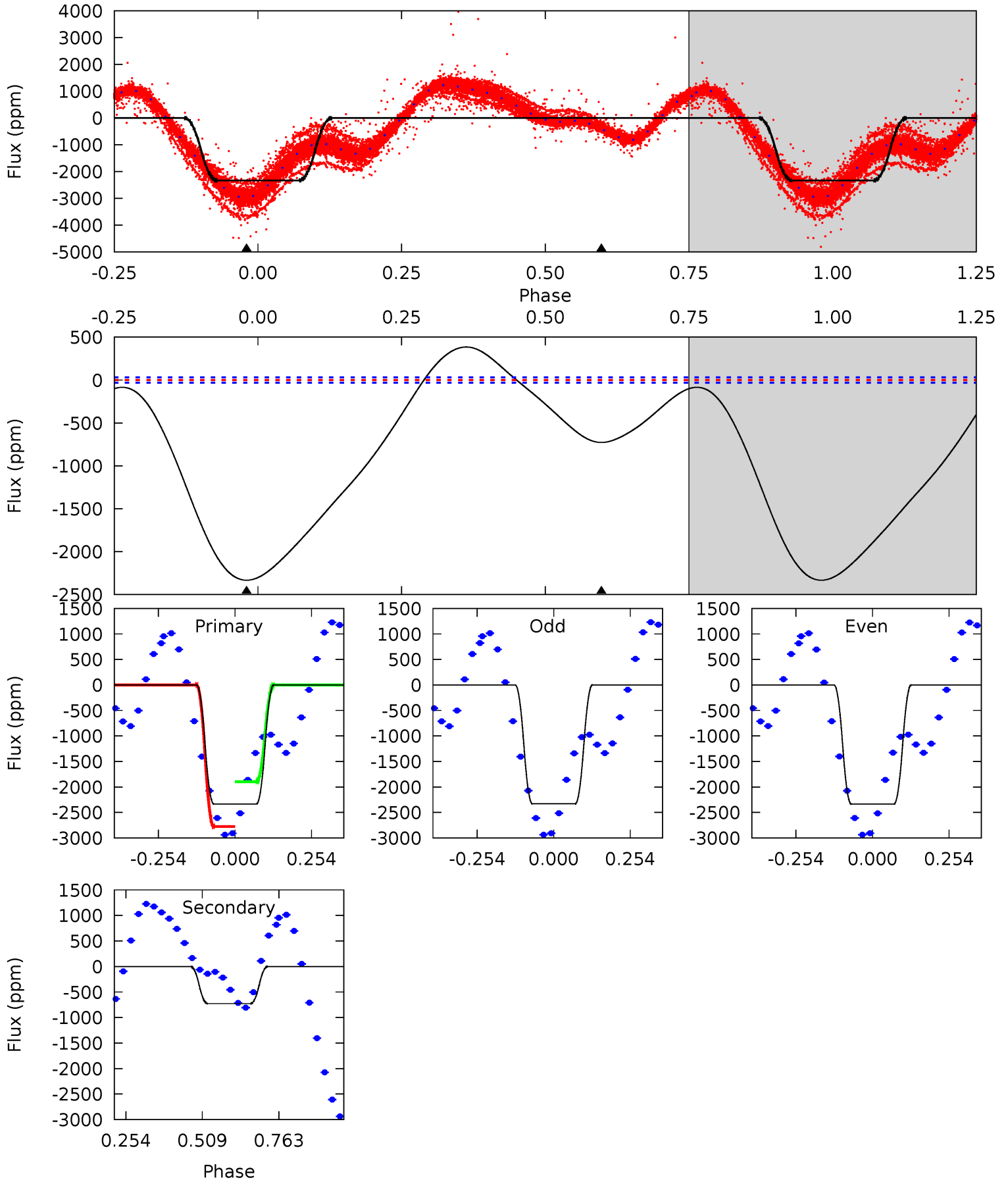
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	1.19	0	0	4.28	0.88	0.25	19.1	19.1	1.19	1.19	0.71	14.3	0.09	15.8



Alt Model-Shift Uniqueness Test

007729156-01, P = 0.677538 Days, E = 131.491243 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
332.3	103.6	0	0	4.36	1.14	39.8	332.3	332.3	103.6	103.6	0.17	1.00	0.14	86.2



Stellar Parameters For KIC 007729156

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9001^{+251}_{-430}	$4.105^{+0.150}_{-0.165}$	$0.070^{+0.200}_{-0.650}$	$2.144^{+0.644}_{-0.527}$	$2.134^{+0.359}_{-0.538}$	$0.305^{+0.260}_{-0.141}$
	+3%/-5%	+4%/-4%	+286%/-929%	+30%/-25%	+17%/-25%	+85%/-46%
Source	KIC0	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 007729156-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-0 ± 0	$0.52^{+0.18}_{-0.17}$	5824^{+404}_{-424}	-3611^{+8165}_{-1101}	$0.228^{+0.363}_{-0.200}$
Alt.	-727 ± 7	$12.43^{+2.00}_{-1.70}$	5799^{+431}_{-386}	5510^{+196}_{-256}	$0.964^{+0.256}_{-0.227}$

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

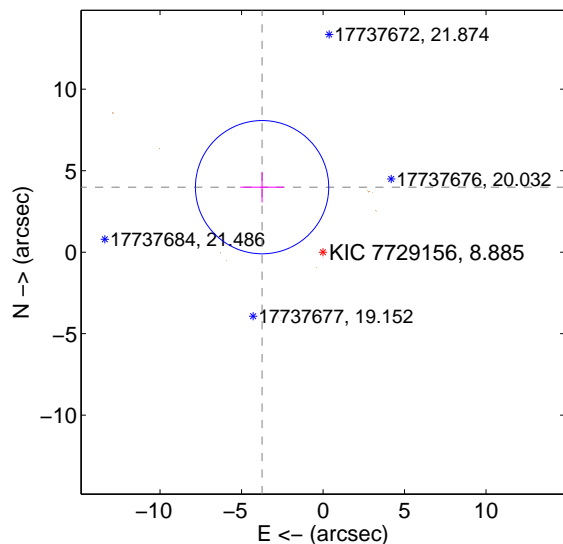
Supplemental centroid analysis for 007729156-01. **Kepler magnitude: 8.88.** Transit SNR 12.51

There are 0 quarters with good PRF difference image offsets

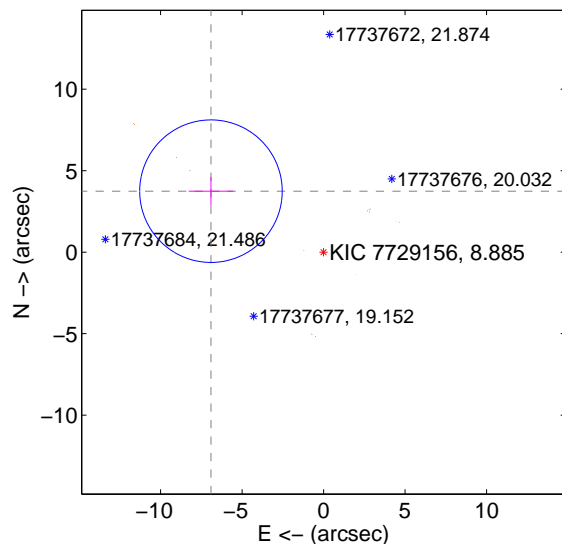
The direct PRF centroid is offset from the target star catalog position by about 1.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.468 ± 1.363	4.01	3.741 ± 1.340	3.989 ± 0.934
PRF-fit source offset from KIC position	7.859 ± 1.458	5.39	6.910 ± 1.368	3.743 ± 0.878
photometric centroid source offset	5.27 ± 2.37	2.23	-2.38 ± 2.85	-4.70 ± 2.22

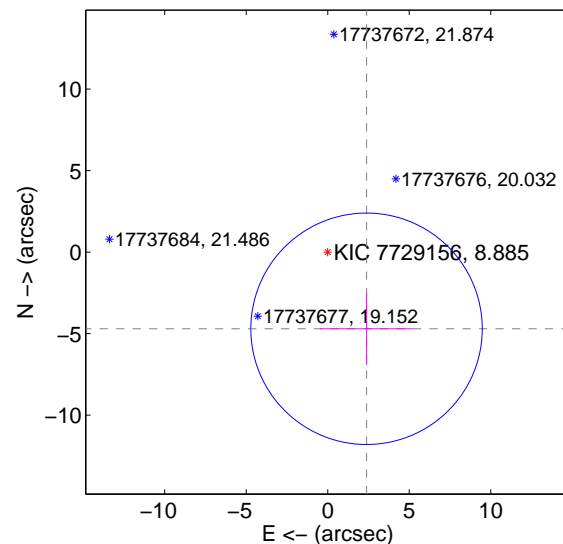
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

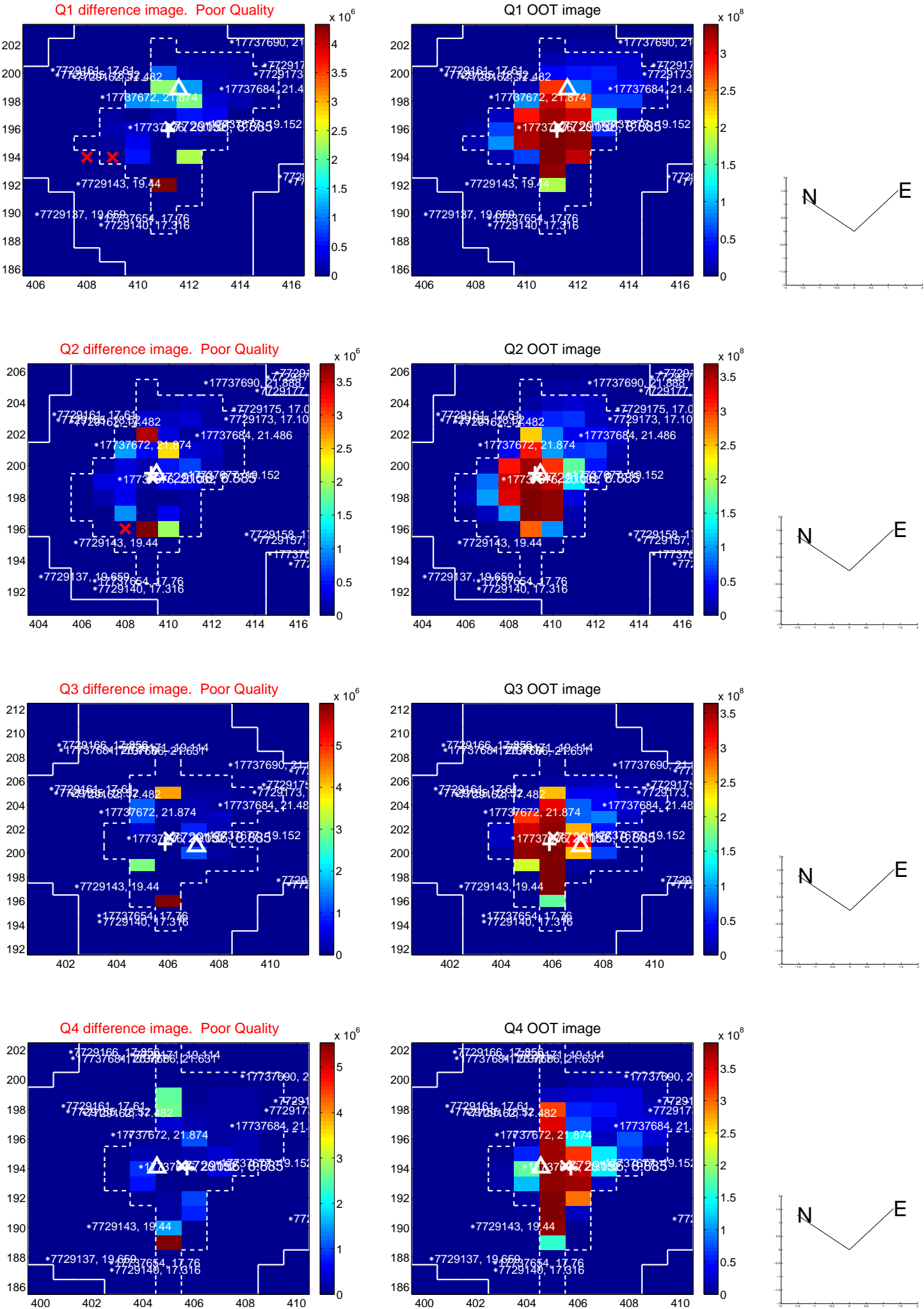


offset from photometric centroids

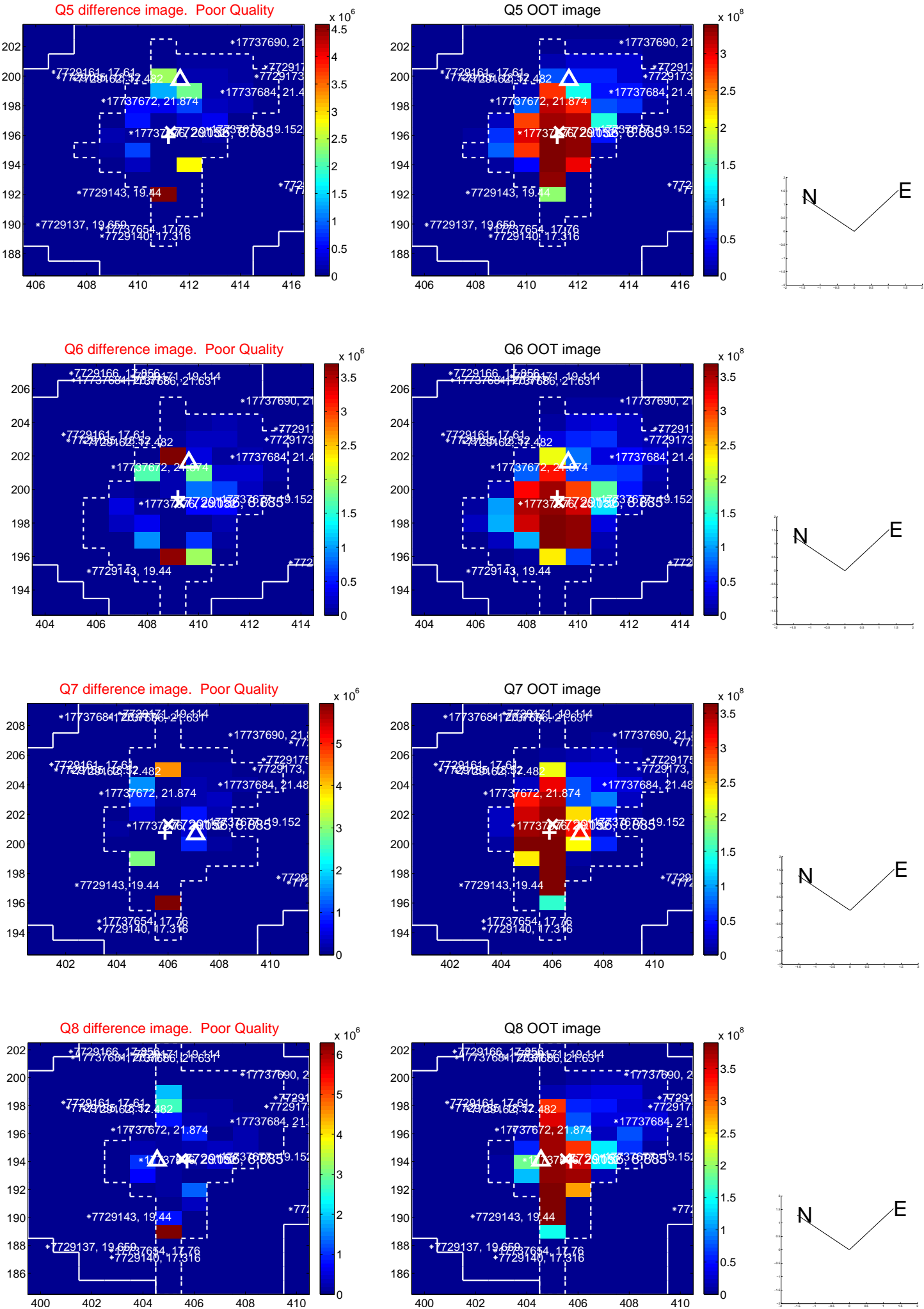


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

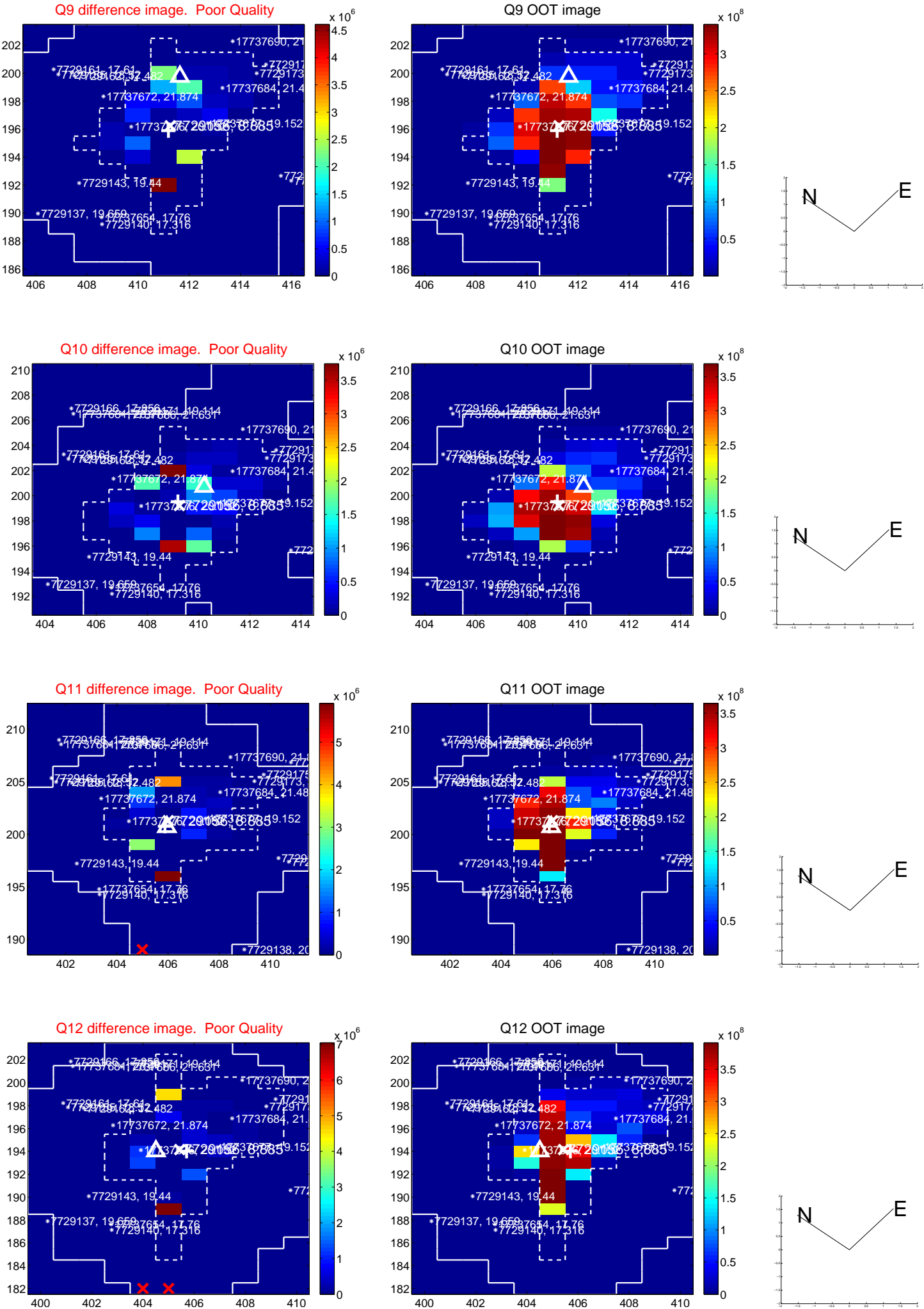
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



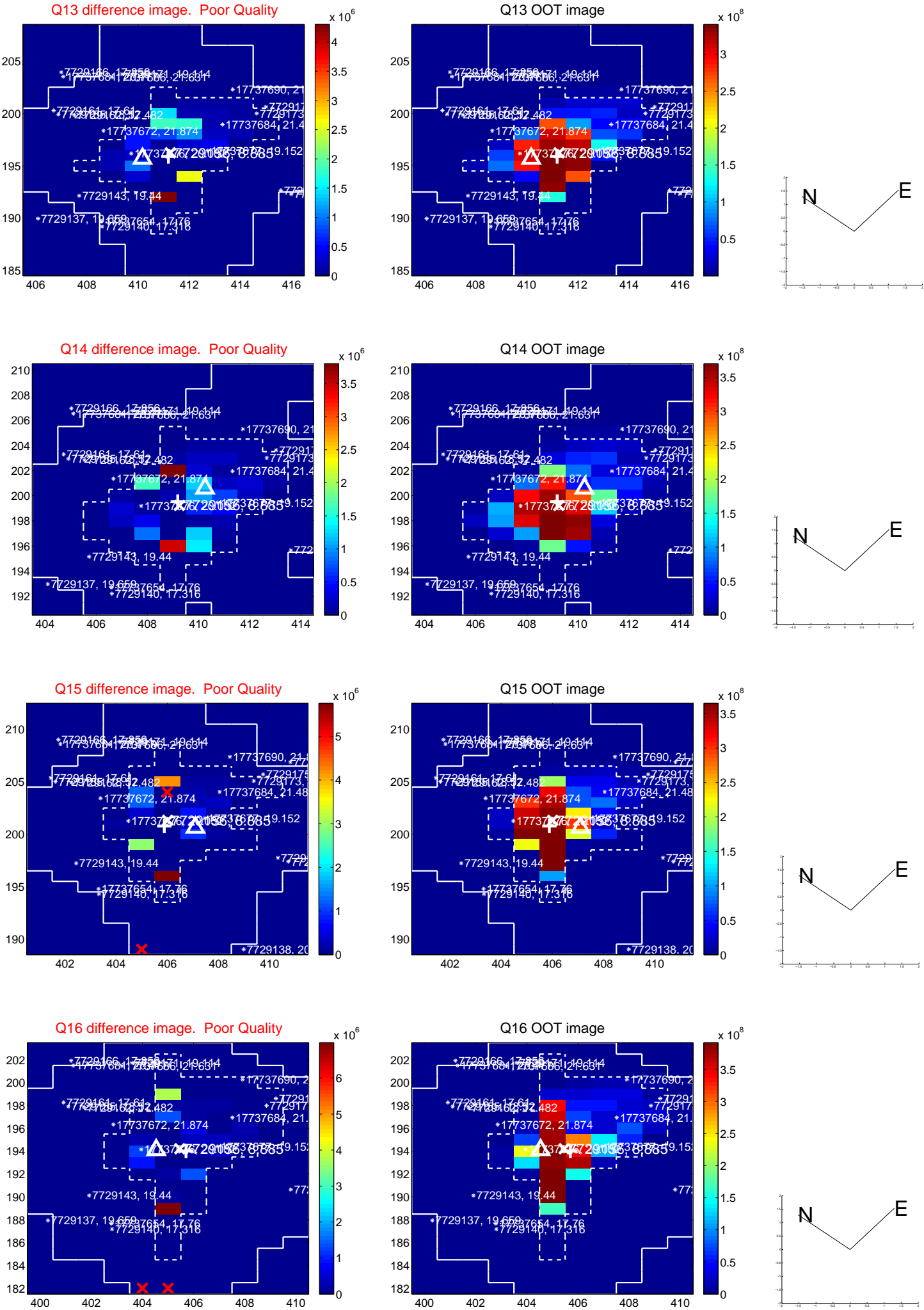
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



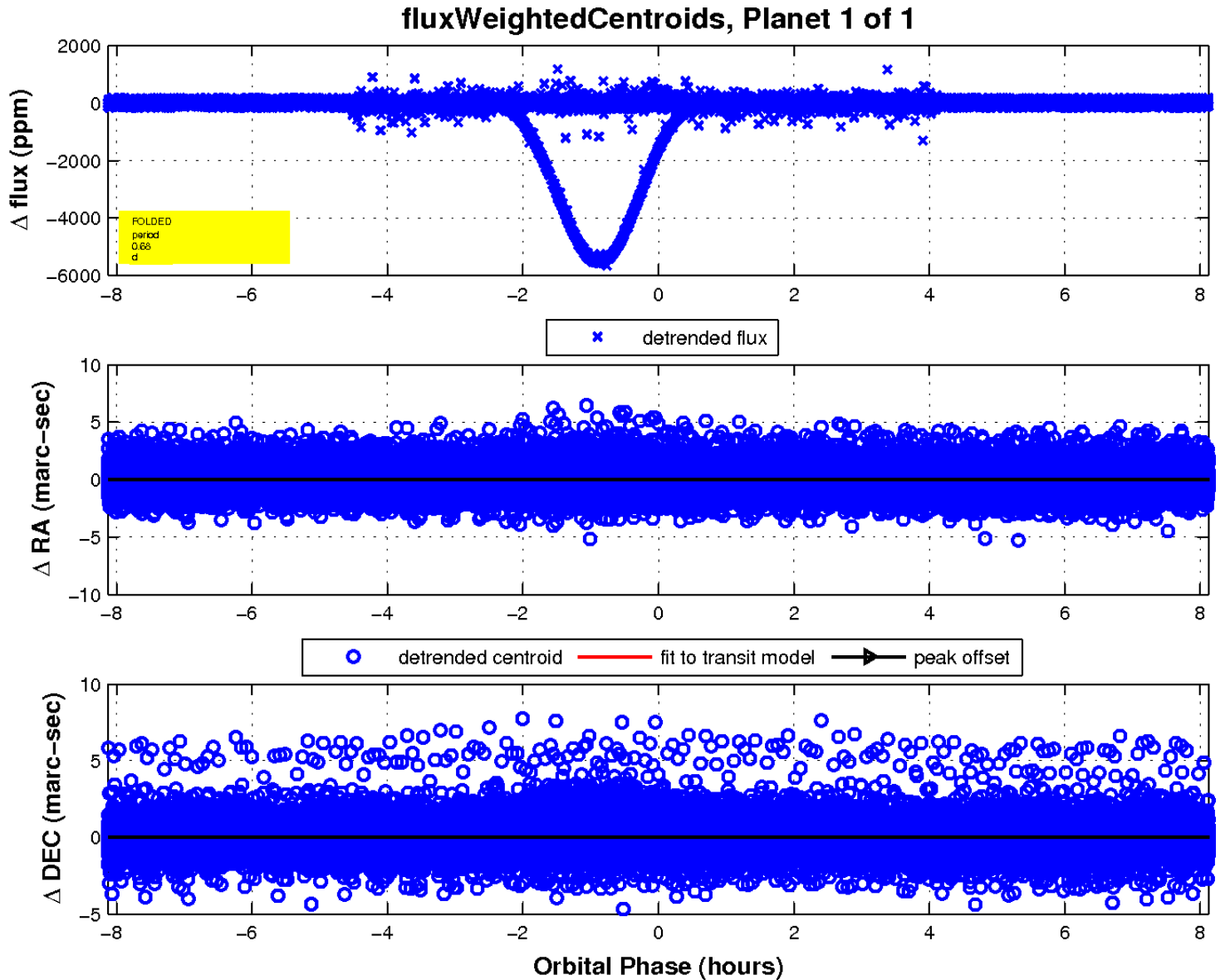
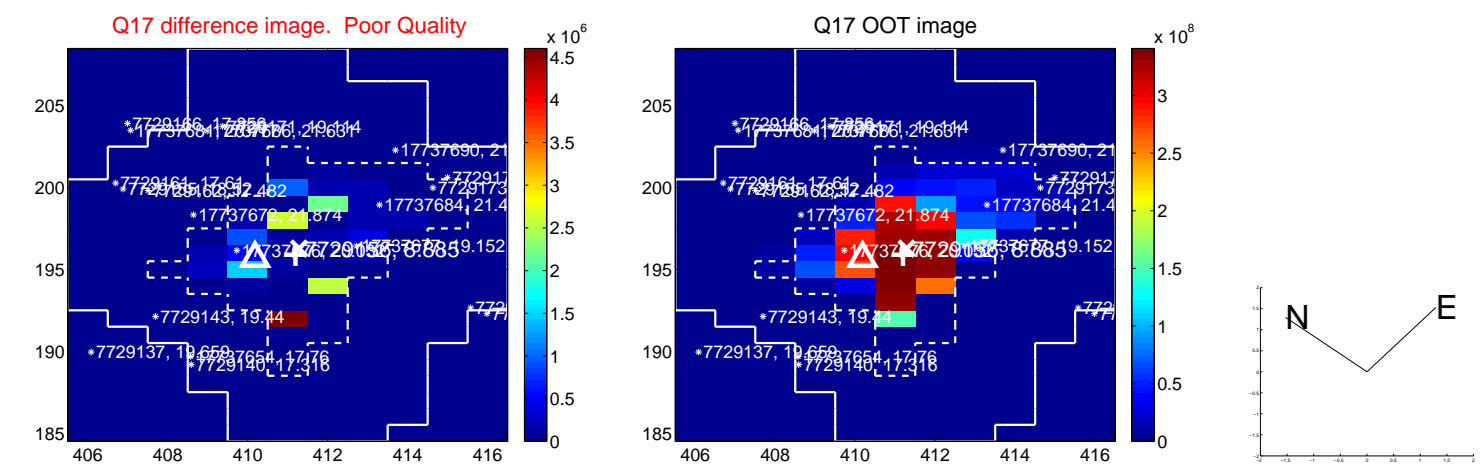
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

